



Three year-old Chelsea was diagnosed with TB in 2016 and put on the child-friendly TB medicines. Her grandmother is so happy that she is now TB Free

Finding the Missing TB Cases

Tuberculosis (TB) remains a major public health problem in Kenya as the leading cause of death from a single infectious agent, ranking above HIV/AIDS. This continues to be the case despite the fact that with timely diagnosis and correct treatment, most people who develop TB disease can be cured. The National TB Prevalence Survey (2016) showed that Kenya's TB burden is higher than previously estimated at 558/100,000 population; further showing that 40% of the nation's TB cases go undetected and untreated.

In line with the Sustainable Development Goals (SDGs) as well as the END TB Strategy that seeks to end the TB epidemic, making progress towards the elimination of TB in Kenya will require improving access to TB services through early diagnosis and proper treatment.

Results of the TB Prevalence Survey indicated that individuals with TB symptoms in the community are not seeking care early and only report to health facilities when very sick, and are likely to have poorer treatment outcomes.

In instances where individuals do seek care when they exhibit TB symptoms, three quarters of them are not diagnosed. This indicates that our health system is not sensitive to TB even when patients present with symptoms. A TB patient will typically visit a health facility up to five times before a TB diagnosis is made.

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Active Case Finding
has been identified as
a key intervention for
'Finding the Missing
TB cases' in Kenya

Word from Dr Brenda Mungai, TB ARC Chief of Party

The heartwarming picture of three-year-old Chelsea (cover page) reminds me of the reason I wake up daily to whole heartedly do my part to END TB! And I'm sure it does to you and the million others who dedicate their lives to end TB worldwide.

In Kenya, 169,000 people fall ill with TB annually. Chelsea is among the approximately 85,000 children who were diagnosed and notified in 2017 but sadly a lot more were missed. As Dr. Kamene, the Head of the National Tuberculosis, Leprosy and Lung Disease Program says, "It must be business unusual! We must find the missing people with TB". All the 169,000 deserve a happy ending as Chelsea's, so what must we do to ensure this? We must all be leaders for a TB free World!

We must embrace the current exciting happenings in Kenya and the world. Internationally, there is a drive for political commitment to ending TB. On September 26 this year, the United Nations General Assembly will hold the first-ever high-level meeting in New York with special focus on accelerating efforts to end TB and reach all affected people with prevention and care. The theme of the meeting is "**United to End Tuberculosis: An Urgent Global Response to a Global Epidemic**". In attendance will be heads of state, UN leadership and other global leaders; technical agencies and academia; private sector and philanthropic



Dr Brenda Mungai
Chief of Party
Tuberculosis Accelerated Response and Care
(TB ARC Activity)

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foundations; civil society and other relevant partners. This will be a tremendous step forward in the fight against TB. It follows the first WHO Global Ministerial Conference, **Ending TB in the Sustainable Development Era: A Multi sectoral Response** that was held on November 16-17, 2017 in Moscow and saw ministers acknowledging TB as a serious threat to global health security.

A commitment to end the TB epidemic by 2030 as envisaged in the Agenda 2030 for Sustainable Development and its Sustainable Development Goals (SDGs), the World Health Organization (WHO) End TB Strategy, and the Stop TB Partnership Global Plan to End TB 2016-2020 was made. They committed to the implementation of a multi sectoral approach to end TB, support for universal health coverage, support for global efforts to combat resistance, financing, advance research and development, rapid uptake of new and more effective tools and engaging communities affected by and at risk of TB.

In Kenya, the government's big four agenda targets projects and interventions in four key pillars: manufacturing, universal healthcare, affordable housing and food security. The government seeks to raise the share of manufacturing sector from nine to 15 percent of the gross domestic product by 2022, expand food production and supply, provide universal health coverage for all Kenyan homes and build 500,000 affordable houses. Improvements in living and social conditions in Europe and other parts of the world in the 19th century were noted to contribute to a significant decline in TB incidence and this could be replicated in Kenya too. Universal health coverage will also help the achievement of the zero catastrophic costs to TB patients End TB targets. As a country, in line with getting political commitment for TB, we must engage the president to attend the UN High Level meeting as well as engage parliamentarians, senators, governors and all political leadership in the dialogue on TB. STOP TB Partnership-Kenya has already engaged the parliamentary health committee and hosts the Africa TB Caucus and we continue to support their endeavors to engage more leaders.

In this newsletter, we highlight activities by National Tuberculosis Lung and Leprosy Disease Program (NTLD- Program) and its partners as they play their part towards ending TB. To ensure patient-centered care, Kenya adopted the use of the shorter term regimen for Multi-Drug Resistant TB since October last year. It's a relief for patients as they take medications for shorter durations with less side effects. Facility active case finding initiative for TB has resulted in increased case finding and the NTLD-Program through support of Global Fund is scaling this up to all the 47 counties. The UNION training on data driven supportive supervision now dubbed **TBData4Action** continued in this period under TB ARC support. So far, 175 coordinators from 22 counties have been trained and 14 local faculty mentored as trainers. This has been an impactful training and the target is to train coordinators from all the 47 counties.

In an effort to leaving no one behind in the fight against TB, there has been efforts to engage professional associations, corporates and private sector. Children have also been engaged as shown through the story of Hezron, a class six child from Mombasa County, who used art to communicate TB messages. Indeed, children can be used as change agents. The current plans in the offing are setting up of a multi sectoral committee to address TB.

Nairobi, the capital city of Kenya and the 10th largest city in Africa, contributed 15% of Kenya's TB cases in 2017. Due to its high urban population and home to Kibera one of the largest slums in Africa, it has a high case notification rate. In our one-on-one segment, Elizabeth Mueni, County Tuberculosis Lung and Leprosy Coordinator shares her vision for Nairobi County on matters TB.

Finally, in the July-September 2018 period, the NTLD-Program and partners will be developing the 2019-2023 National strategic plan for Tuberculosis, Leprosy and Lung Disease. The theme is **"Finding all the missing people with TB"**. Let us all join them to develop a data driven strategic plan to end TB!

"Mulika TB! Maliza TB! Ni Jukumu Langu! Business Unusual!"

On September 26 this year, the United Nations General Assembly will hold the first-ever high-level meeting in New York with a special focus on accelerating efforts to end TB and reach all affected people with prevention and care.

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Active Case Finding

Active TB Case Finding (ACF) is the systematic identification of people with suspected active TB, in predetermined target groups, by use of tests, examinations, or other procedures that can be applied rapidly.

ACF in Kenya is an intervention to implement the first Pillar of the End TB Strategy - integrated patient-centred care and prevention. ACF has been identified as a key intervention for 'Finding the Missing TB cases' in the country, and has already demonstrated increased case finding in the earmarked county referral facilities.

Through ACF interventions, the Ministry of Health's National Tuberculosis, Leprosy and Lung Disease Program (NTLD-Program) focuses on:

- Preventive treatment of persons at high risk, and vaccination against TB
- Collaborative TB/HIV activities, and management of comorbidities
- Treatment of all people with TB including those with drug-resistant TB, and provision of patient support
- Early diagnosis of TB including universal drug- susceptibility testing and systematic screening of TB contacts and high risk groups.

Goal of ACF

To contribute to the acceleration of Kenya's efforts to end TB by 2035 and eliminate TB by 2050 by standardising and optimising the quality of

interventions with specific focus on increasing early detection of TB cases. This ought to be a permanent and routine activity carried out across all service delivery points (SDPs) across all health facilities.

Facility-Based Active Case Finding (ACF)

Facility-Based ACF is an intervention geared towards finding the missing TB cases in Kenya by sealing the loopholes present in health facilities.

The move to find more TB cases has led to increased TB screening of all patients at all service delivery points in all counties. This has not only resulted in an increase in the number of patients screened, but has also increased the number of GeneXpert tests conducted, and therefore, Gene Xpert utilisation.

Facility level ACF has been identified as a low-lying fruit in finding the 'missing' cases of TB in a cost and time efficient manner.

With support from USAID through TB ARC, an ACF tool kit and ACF stamp were developed to enhance facility-based ACF.

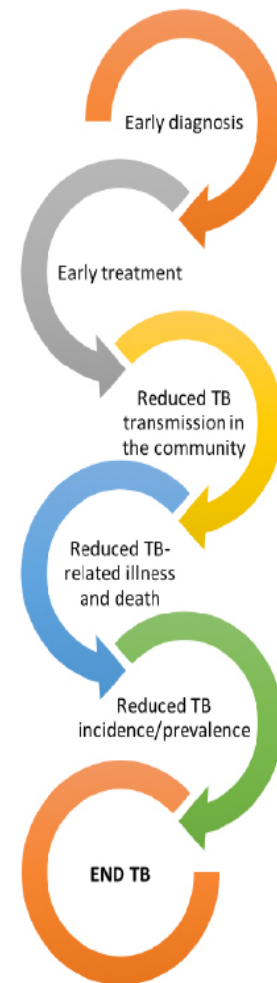
County Engagement

By March 2018, TB ARC had supported 13 counties in the first phase of the Facility-based active case finding intervention, through County and Sub-County sensitisations.

These sensitisations are meant to strengthen county trainers of trainees (ToT) teams that will direct ACF activities within the counties, as well as to integrate TB screening into other activities.

The sensitisations of health care workers is meant to increase their index of suspicion in identifying TB cases both in adults and in children. To this end, TB ARC has sensitised a total of 861 health care workers on active case finding.

Benefits of ACF



ACF cascade at health facilities

ACF has already demonstrated increased TB case finding

Relief for DR TB Patients: Introduction of the Shorter Term Treatment Regimen



A patient is instructed on how to take TB Drugs

Drug-Resistant Tuberculosis (DR-TB) is a public health crisis and a global health security risk. In 2016, there were 600,000 new cases with resistance to Rifampicin (RR TB), and a total of 129,689 people started on drug-resistant TB treatment. Despite this number, this is only 22% of the estimated incidence of DR TB globally. Treatment success remains low at 54% globally (WHO Global Report 2017).

DR-TB cannot be treated with the standard six-month course of first-line medication which is effective for most TB patients. Patients with RR-TB or MDR-TB are treated with a different combination of second-line drugs, usually for 20 months or more. The treatment journey for these patients is not only difficult with a high-pill burden and significant side effects, but it also brings with it high treatment related costs to the patient and the household.

Following successful studies, a shorter standardised treatment regimen has shown promising results and based on data from these studies.

In 2017, Kenya notified 577 Drug Resistant TB cases

The World Health Organization (WHO) recently updated its treatment guidelines for drug-resistant TB, recommending the use of the shorter MDR-TB regimen under specific conditions.

Kenya implemented the roll-out of the Shorter Term Regimen (STR) in all counties in October 2017. Currently, more than 300 patients have been put on STR.

In March, 2018, NTLD-Program with support from TB ARC and the county physicians, accelerated support for the scale up of the Shorter Term Regimen for eligible DR TB patients by conducting sensitisations for the 10 high burden DR TB counties that are responsible for 50% of the country's DR TB burden.

These trainings are ongoing and so far 240 health care workers in six counties have been sensitised on the short term treatment regimen.

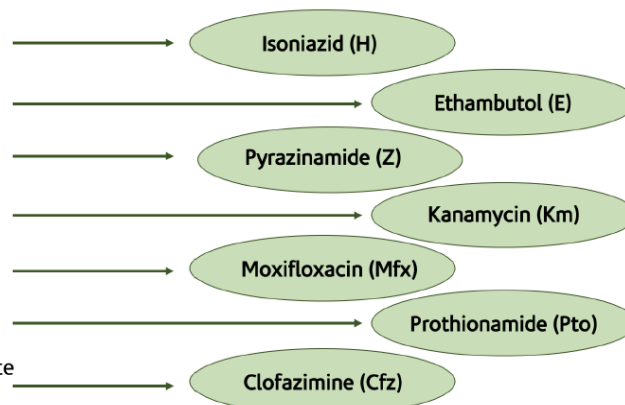
SHORTER TERM REGIMEN	CONVENTIONAL REGIMEN
● 9 - 12 months duration	● 20 + months duration
● Low incidence of side effects	● High incidence of side effects
● High treatment success rates >85%	● Treatment success rates ~ 60%
● Cheaper (\$740 per patient)	● Costlier > \$3,000 per patient
● Decision to move to continuation phase based on smear-easier follow up	● Decision to move to continuation phase based on culture

Comparative characteristics between the conventional MDR-TB regimen and the Shorter Term Regimen

CURRENT DRUGS

- Isoniazid (H)
- Rifampicin (R)
- Ethambutol (E)
- Pyrazinamide (Z)
- Kanamycin (Km)
- Capreomycin (Cm)
- Levofloxacin (Lfx)
- Moxifloxacin (Mfx)
- Cycloserine (Cs)
- Prothionamide (Pto)
- Paser (PAS)
- Clofazimine (Cfz)
- Amoxicillin/Clavulanate (Amx/Clv)

SHORTER TERM REGIMEN DRUGS



Composition of the Shorter Term Regimen

Biannual County Performance Review



Homa Bay County is awarded for emerging the best performer

Between February 5 and 14, 2018, TB ARC supported counties to participate in the NTL- Program bi annual performance review meeting held in Nakuru County under the theme: **'Finding the missing cases of TB; Business Unusual'**. The meeting was organised jointly by the NTL-Program and its partners and brought together county and national teams, implementing partners and relevant stakeholders to review performance.

Counties showcased their successes towards increasing case finding and identified the major challenges they faced such as low GeneXpert uptake.

The review meeting aimed at assessing county performance with emphasis on key indicators such as: GeneXpert utilisation, treatment success rates, drug resistant Tuberculosis, implementation of facility-based active case finding, paediatric and adult case notification, TB/HIV data, Isoniazid Preventive Therapy (IPT) uptake, and commodity reporting rates. The meeting provided a platform to discuss plans for the next half year and share insights on global goals like the End TB strategy.

Updates were issued on the progress of activities undertaken by various implementing partners such as: AMREF Health Africa, AMPATH, Elizabeth Glasier Paediatric AIDS Foundation (EGPAF) among others. They had a chance to share their workplans.

Majority of the Counties reported an increase in active case finding. However there was emphasis on the need to find more children through contact tracing. Dr Kamene, Head of NTL-Program said, "Let us ensure that for every adult diagnosed with TB, there is a child tested and put on IPT."

County Coordinators were called upon to join the STOP TB movement.

TB ARC supported an award ceremony to motivate the counties that are doing exceptionally well. The TB ARC activity also supports County engagements through routine support supervision and External Quality Assurance (EQA) services.

Wanted! Leaders for a TB Free Generation



Delegation of guests at Mathare Youth Sports Association grounds on World TB Day 2018

On March 24 this year, Kenya joined the world in commemorating World Tuberculosis (TB) Day to raise public awareness about the devastating health, social and economic consequences of TB and to step up efforts to end the TB epidemic. The day provides a platform to shine the spotlight on the disease and mobilise social and political commitment to accelerate efforts to end TB.

Due to its communicable nature, everyone is at risk of TB infection. There has been an increase in forms of TB that are resistant to common medication. This emergence of multi-drug resistant TB (MDR TB) poses a major health threat and risks undoing the gains made in the fight against TB. Untreated TB patients fuel the spread of TB to other people; those they are in close contact with at home, at work, in places of worship or anywhere where people congregate.

The 2018 global World TB Day theme was '**Wanted: Leaders for a TB free World**' customised for Kenya's context to: '**Mulika TB! Maliza TB! Ni Jukumu Langu**' and a call to action for all to '**Get Tested, Get Treated, Get Cured for TB**'.

To commemorate World TB Day 2018, CHS joined the Ministry of Health and other TB partners within Nairobi County at the Mathare Youth Sports Association (MYSA) grounds in Embakasi West. Gracing the event, was the Cabinet Secretary (CS) for Health, Mrs Sicily Kariuki EGH, US Ambassador Robert Godec, Nairobi County Executive Committee Member for Health Dr Hitan Majevdia, World Health Organisation Country Representative, Dr Rudolf Eggers, among others.

A football tournament dubbed 'Mulika TB Tournament' sponsored by AIDS Healthcare Foundation (AHF) saw local football teams play and promote TB messages. The final game was officially kicked off by the Health CS as TB and HIV screening was conducted with the support of partners like CHS through the USAID funded TB ARC activity.

The tournament aimed at creating public awareness that TB is preventable, treatable and curable.

Speaking at the event, Cabinet Secretary for Health, Mrs Sicily Kariuki noted that, "Kenya is currently working towards achieving universal health coverage. The Ministry has decentralised TB services across all 47 counties and to the lowest level of the health system. The ministry recently began paying NHIF for all multi-drug resistant TB patients. This means that all drug resistant TB patients can now receive their medication at ease."

The Ministry is striving to ensure that quality, affordable and accessible services are provided to all Kenyans.

The US Ambassador to Kenya, Robert Godec hoped that Kenya shall continue her efforts to increase commitments to end TB through all available channels, particularly, through the highest-level participation in the upcoming UN High-Level Meeting on TB in New York.

This, he said, will be an opportunity to demonstrate Kenya's highest level of political commitment in making national investments towards ending TB, and the resulting political declaration on TB will form the basis for the future of Kenya's TB response.

A TB-free world can only be achieved through leaders who champion efforts to end TB from the local to national level. Each person has a role to play and CHS calls for each Kenyan to take the lead towards ending TB.

A total of 237 people were screened for TB during the event.

Mulika TB! Maliza TB! Ni jukumu langu, na jukumu lako pia!

Strengthening TB Control in the Devolved Health System



Dr Jackson Kioko, Director of Medical Services-Ministry of Health, Dr Maureen Kamene, Head of NTLD-Program and Timothy Malika, CTLC Kisumu County during the forum for Strengthening TB Control in the Counties

With support from USAID through the Tuberculosis Accelerated Response and Care (TB ARC) activity, CHS supported a meeting that brought together county and sub county TB coordinators to share experiences and learn from each other in efforts to end TB. The activity took place at the Pride Inn Paradise Resort, Mombasa from Tuesday, April 3, 2018 to Friday, April 6, 2018. Partners present at the four-day meeting included the National Tuberculosis, Leprosy and Lung Disease Program (NTLD-Program), Kenya Medical Supplies Authority (KEMSA), Kenya School of Government, AMREF Health Africa in Kenya, EGPAF and AMPATH under the theme: 'Strengthening TB control in devolved health system in Kenya'.

In his opening remarks, the Director of Medical Services Dr Jackson Kioko spoke of the need to strengthen efforts in active case finding, the role community engagement has to play in ending TB, Universal Health Coverage (UHC) and the need to leverage existing structures to end TB in Kenya.

"Active Case Finding is a must-do for all health facilities. Kenya ought to identify 169,000 people with TB every year. Only 85,188 were identified in 2017, a 12% increase from 2016," explained Drusila Nyaboke, Technical Lead, Active Case Finding at NTLD-Program. Many cases are still being missed and the undetected or untreated TB cases continue to fuel the spread of the disease.

Dr Jackson Kioko informed the TB coordinators that the Ministry of Health will support decentralisation of TB ECHO to county and sub-county levels. TB ECHO is a collaborative model of medical education and care management that provides health care workers with knowledge and skills to manage TB patients and more so among children. TB coordinators are key users of the TB ECHO platform and the decentralisation will go a long way in supporting them to better manage complex TB cases.

In line with the 2018 World TB Day theme, participants were called upon to 'Be leaders for a TB free generation', that can only be achieved through leaders who champion efforts to end TB from the local to national level.

At the meeting, the NTLD-Program shared highlights of findings from a recently concluded adherence survey that will be useful in informing strategies to end TB at county and sub-county levels. The survey looked to identify factors associated with non-adherence to TB treatment. The survey found that 35% of TB patients were non-adherent.

A survey to determine the contribution of community health volunteers (CHVs) in referral of TB patients in Kenya found that 18% of the participants were referred to health facilities by CHVs and 67% of them were issued with a referral form. The survey further indicated that there is poor documentation of CHV referrals; patients reporting directly to the TB clinic being those most likely to be reported as referrals compared to other service delivery points.

A selection of TB coordinators from counties that had implemented facility-based active case finding shared best practices and lessons learnt from the activity aimed at finding the missing TB cases.

Through the TB ARC activity, County and Sub-County TB Coordinators have been supplied with tablets loaded with monthly bundles and airtime to access the TIBU system. This has enabled them to collect data and monitor the TB indicators and real time reporting of the same to the NTLD-Program.

A total of 500 coordinators and partners attended the TB engagement forum.

The undetected and untreated TB cases continue to fuel the spread of the disease

Sensitising Paediatricians towards Ending TB in Children



Participants of the paediatricians' sensitisation meeting held in Kisumu County

The USAID funded TB ARC activity conducted a series of childhood TB sensitisation meetings and trainings between November 20 and 24, 2017 in Mombasa, Eldoret, Nyeri and Nairobi targeting paediatricians from 38 counties. Other trainings were held between February 19 and 23, 2018 in Kisumu and in Nakuru Counties respectively. Paediatric skills based trainings have also been conducted in Tharaka-Nithi, Isiolo, Kisii, Taita-Taveta, Kitui, Kajiado, Nandi, Nyandarua and Muranga counties. Part of the facilitators were paediatricians who had previously attended similar sensitisation meetings.

These sensitisations were a continuation of meetings to engage all paediatricians in the country both from private and public health facilities in matters childhood TB diagnosis, treatment and follow-up. The updated paediatric guidelines and SOPs were distributed at the meetings where paediatricians also shared their experiences on childhood TB.

The role of CTLCs was highlighted towards supporting GeneXpert utilisation and sputum networking between private paediatricians as well as availing child-friendly medicines to them. Topics of discussion included: an overview of the global TB burden and that of Kenya, childhood TB diagnosis, treatment and follow up, active case finding and the contribution of the public-private sectors in meeting the goal of ending TB by 2035 and the role of paediatricians in managing and eventually eliminating childhood TB. Healthcare workers were trained on how to perform naso-pharyngeal aspirations (NPAs) and naso-gastric aspirations (NGAs).

According to the NTLD-Program, at least 10-15% of the total diagnosed TB cases should be among children.

"We need to change the typical way of diagnosing TB in children," said Dr Jacque Oliwa, Paediatrician. "A negative GeneXpert test does not rule out TB in children," she explained.

Tuberculosis is a major cause of mortality among children. According to the World Health Organization, globally, there are one million incidents childhood TB cases and 253,000 deaths including 52,000 deaths among HIV infected.

In 2015, Kenya reported nearly 7,000 cases of TB among infants and children, with those under five years of age facing the greatest risk of having severe

and often fatal forms of the disease such as TB meningitis which can result in deafness, blindness, paralysis and mental disability.

"Children represent 6-10% of all cases of deaths as a result of TB," explained Dr Oliwa.

The paediatricians were called upon to take a full patient history as it is very important in diagnosis. Reverse contact tracing was also reinforced as a key intervention in paediatric TB control. The care giver should be tested using a chest X-ray. Unfortunately, the risk of progression to active disease is higher in infants than in adults as their immune system is not fully developed.

Several gaps were identified during these sessions: staff at the maternal and child health clinics (MCH) are not fully involved in screening and diagnosis of TB, presenting a missed opportunity for preventive treatment and early diagnosis. Minimal involvement of some cadres such as Paediatricians, Pharmacists, Physicians, Clinical Officers in the Out-Patient Department (OPD) was also identified as a gap in the identification and care of TB patients. It was also noted that Paediatricians did not have reporting tools such as TB registers, Presumptive Registers, Isoniazid Preventive Therapy (IPT) registers and the national paediatric guidelines.

Recommendations fronted to fill the existing gaps included: integration of TB screening services across all departments where children receive medical services, creating demand for TB services and care through existing activities such as incorporating TB in Water, Sanitation and Hygiene (WASH) campaigns and the school curriculum, advocating for additional TB engagement with retail chemists to refer presumptive TB patients and to identify paediatricians to serve as childhood TB ambassadors and involve them in TB activities such as World TB day commemorations, giving talks and continuous medical education sessions.

"Our tests are only as good as our specimen," stressed Dr Oliwa. "Get a good specimen that will give a good yield."

This was followed by practical sessions on NPAs, NGAs and mantoux tests to increase their confidence while carrying out the procedure.

Through the TB ARC activity, CHS seeks to expand access to quality-assured TB services in all counties and for all forms of TB, through the identification and implementation of evidence-based interventions aimed at increasing the proportion of TB cases identified and treated. A total of 145 paediatricians have attended the sensitisation meetings.

According to the World Health Organization, there are one million incidents of paediatric TB and 253,000 deaths globally

TB ARC at KMA Annual Scientific Conference 2018



A section of participants at the 2018 KMA conference

The 46th Kenya Medical Association (KMA) Annual Scientific Conference was held in Nyali, Mombasa County from April 18 to 21, 2018. The conference focused on the theme: 'Health care financing towards Universal Health Coverage (UHC)'. The main objective of the conference was the need to invest persistently and consistently in education and health in order to achieve UHC.

The delegates were especially called upon to leverage on the existing devolved structures as they provide vast opportunities to achieve UHC. The conference highlighted the importance of taking advantage of the devolved system to achieve the 2030 sustainable development goals. The annual scientific conference contributes to the professional development of doctors as well as improving health care.

The USAID funded TB ARC activity supported county TB staff to attend the conference that drew delegates from the medical field as well as those from non-governmental organisations, pharmaceuticals and insurance companies. The conference built on various development areas linked to health including: advancing health through equity and human rights, role of nutrition and Water, Sanitation and Hygiene (WASH) as critical drivers towards achieving UHC.

Various aspects of universal health coverage were discussed with specific focus on the association's role and opportunities to make use of devolution at County levels. Areas of focus included: role of digital technology in achieving UHC, collaboration with NHIF, health inequalities and social determinants of health.

The impact of communicable diseases in Kenya was emphasised as everyone's business.

TB is a key priority communicable disease and a major public health problem in Kenya with the country among the 30 high burden TB countries globally. This implies that not all health care workers have a high suspicion index for TB and therefore, they do not screen and diagnose TB. This was clearly explained during the track on the role of Community Health Workers (CHW) in early TB diagnosis and the social determinants of health and TB

The KMA Conference provided the TB ARC activity with a platform to engage members and delegates to discuss issues around TB. The call to action was to find the missing cases and to rally support for facility active case finding across all entry points. With funding from USAID, the TB ARC activity has consistently committed to increasing the number of TB cases notified.

**We need to invest persistently and consistently in education and health
in order to achieve Universal Health Coverage**

USAID Supports Union Training on Principles of Tuberculosis Care and Prevention



Participants of the fifth Union training held in May 2018 in Sagana, Murang'a County

With support from USAID through the activity, CHS supported rounds III, IV and V of the International Union against TB in-country training for 17 additional counties. In Round III, Machakos, Makeni, Lamu, Taita Taveta and Kisumu counties were trained; while in Round IV Homa Bay, Nandi, Isolo, Tharaka Nithi and Bungoma were trained and in Round V, Siaya, Wajir, Elgeyo Marakwet, Kiambu and Embu were trained.

In October 2017, USAID through TB ARC supported four participants to attend the 35th UNION world conference on lung health in Guadalajara, Mexico. In this conference whose theme was 'Accelerating towards Elimination,' there were two abstracts presented and Kenya's experiences shared following the customised UNION trainings that TB ARC is currently supporting in-country, to build county and sub county coordinators' capacity on data driven supervision and programming that translates knowledge to action.

The most recent UNION Training was held in May 2018 and the theme was: 'Principles of Tuberculosis care and prevention in Kenya: Translating Knowledge to Action'. The training focused on building capacity of the county teams and instilling optimum skills and overall competence in lung health.

The trainings continue to build the capacity of county and sub county

coordinators, on data driven supervision, data driven programming and work planning. Counties trained have begun utilising acquired skills in development of county and sub county work plans that are SMART and guide programming.

This international training that combines didactic and field based practicals, avails high quality international training closer to the counties reducing the cost of the training, and reaching a larger number of participants each time. The training emphasises the use of sub-national data for local planning and programming at county level.

So far, the training has resulted in the development of local faculty capacity, and has been demonstrated to be more cost effective. The total cost incurred per participant trained is approximately USD 1,300 compared to the international UNION training that costs USD 3,550 per person exclusive of air tickets and visa fees.

The training encompasses: understanding the country needs, pre-course preparations by coordinators, classroom based didactic sessions, field practical sessions, validation and analysis of facility, sub county and county level TB data, feedback sessions and development of county action plans.

The UNION training has resulted in the development of local faculty capacity and has demonstrated to be more cost-effective

One on one with Nairobi County TB Coordinator - Elizabeth Mueni Litswa



Elizabeth Mueni Litswa, Nairobi County Tuberculosis, Leprosy and Lung Coordinator

For partners working in TB control, Elizabeth Mueni Litswa is a familiar face. She is currently serving as Nairobi County Tuberculosis and Leprosy Coordinator (CTLC). The role has seen her provide coordination and leadership in planning, implementation, and evaluation of Tuberculosis, Leprosy and Lung health activities within Nairobi County. She sheds more light on the TB situation in Nairobi County, challenges, support she has received and her vision for the County.

TB Burden in Nairobi County

Nairobi County contributes 15% to the country's TB statistics. There has been a steady increase in the number of TB cases notified in the first half of the year in 2018 by 10% (7,325 people diagnosed with TB) compared to 2017 where 6,640 people were diagnosed with TB. Keen to note is that there has been an increase in the number of DR TB cases notified by 50%. Last year, there were 30 DR TB cases notified and this year, 62 DR TB cases have been notified. Those that are diagnosed with TB are mostly men of productive age 25-34 years.

"We have recorded increased TB cases, among high school students in boarding school and in informal settings," states Ms Mueni.

She attributes this to the congestion in the dormitories. Some of the secondary schools where TB screening has been done include: Huruma High School, Arya High School, High Ridge High School, Beth Mugo High School and Starehe Girls' High School. The congregate settlements in Korogocho, Ruaraka and Roysambu have equally recorded high cases of TB.

Challenges faced in Nairobi County

Loss to follow-up

This is for both Drug Resistant and Drug Sensitive TB due to the migration of patients from one area to another.

Lack of isolation facilities

Lack of isolation facilities within the county has contributed to loss-to-follow up. She has approached the county government and is awaiting for their commitment to include this in next year's financial budget. Ms Mueni has expressed willingness to work with partners to make this facility available. Currently, Kenyatta National Hospital serves as the sole isolation facility.

Low suspicion index of HCWs for paediatric TB

This has led to low number of paediatric cases notified and low initiation on IPT for under five's. Knowledge gap in paediatric TB diagnosis.

Street families who are usually non-adherent to treatment and alcoholics who record a high defaulter rate. As a result, they come down with DR-TB.

Sample Networking

Nairobi County has a number of partners supported by USAID, CDC, TB REACH and other donors. In supported sub-counties, the partners support an integrated sample referral system. For Sub-Counties that are currently not supported for sample networking for GeneXpert, the turnaround time is much longer delaying results to patients.

Innovations carried out

Nairobi County has a number of partners supported by USAID, CDC, TB REACH and other donors. In supported sub-counties, the partners support an integrated sample referral system. On job trainings among HCWs, Continuing Medical Education, targeted community screening for schools, dens and street families. So far, teachers in 200 schools have been sensitised on TB. Dens where screening has been done include: Korogocho, Mathare, Kibera, Kangemi, Kiamaiko and Pipeline. Screening has been done in industries including: KPA- Inland Container Depot, Darling, Crown Paints, Chandaria and Canon.

Nasopharyngeal Aspiration training in 30 facilities including: Riruta, Mbagathi, Bahati, Mathare North, Kayole 2, St Mary's Lang'ata, Baraka Medical and Neema Uhai to increase paediatric case finding.

Sensitization of 19 MCAs who are members of the County Assembly Health Committee in June 2018. This resulted in commitment by them to support TB control in their zones.

TB ARC Support for Nairobi County

TB ARC has contributed to building the capacity of health care workers in TB control. Thanks to TB ARC, several trainings have been conducted including: paediatric TB, nasopharyngeal aspiration (NPA) practical sessions for diagnosis of childhood TB, Acid Fast Bacilli (AFB) refresher trainings for laboratory staff, integrated TB curriculum, infection prevention and control (IPC) training, programmatic management of drug resistant TB (PMDT) as well as county sensitisation on the shorter term regimen (STR) for treating multi-drug resistant TB.

There are increased cases of TB among high school students in boarding Schools

TB ARC supports Nairobi County by fuelling and servicing of the vehicle allocated to the TB County coordinator's office to facilitate movement for conducting supportive supervision to health facilities. This has greatly enhanced support supervision within the County and in the sub counties.

The activity has supported the provision of tablets loaded with monthly data bundles and airtime to access the TIBU system. Through TIBU, the County and the NTLD-Program are able to monitor TB indices data in real time. This has improved data management while enhancing reporting rates.

Through funding from USAID, the NTLD-Program has developed an electronic patient record management system - TIBU, used for data collection, monitoring of TB indicators and real time reporting on TB countrywide.

Quarterly TB/HIV stakeholder meetings, technical working group (TWG) meetings on GeneXpert and monthly data review meetings have been possible with support from USAID funding through the TB ARC activity and other partners working in Nairobi.

Active Case Finding in Nairobi County

Following the findings of the TB prevalence survey (2016), that showed that more than 40% of the country's TB cases were going unidentified and untreated, the NTLD-Program piloted active case finding (ACF) across 13 high burden TB counties including Nairobi with the highest TB burden.

Some of the key ACF activities supported by TB ARC include: TB sensitisation for health care workers across all sub-counties, sensitisation of the sub-county health management teams, printing of recording and reporting tools, technical assistance to the County on facility ACF as well as core TB training.

To date 1,614 TB cases in Nairobi County have been identified through ACF activities between October and December 2017. This is in addition to the targeted TB screening in schools, colleges and industries. By working closely with the TB ARC Advocacy Officer, Rose Wandia, some of the companies and institutions where TB screening has been done include: Chandaria Industries (Kasarani), Kabete Technical College, Railway Training Institute and Nairobi University. During these screening activities, the public was sensitised on TB, resulting in increased awareness about the disease.

Regional Officer Support

The engagement of a Regional Officer to support Nairobi County has improved the coordination between the County Health Office and the USAID funded TB ARC activity. The Regional Officer operates from the County Health Office and works closely with the CTLC in supporting TB control activities. This ensures seamless work planning and implementation of activities.

Printing and Distribution of Tools and Job Aids

With support from USAID, TB ARC has also been instrumental in printing and distribution of many recording and reporting tools that include: laboratory supervisory checklists, TB contact registers, IPT appointment cards, GeneXpert algorithms, AFB/GeneXpert registers, TB record cards and appointment cards, paediatric dosage charts, paediatric algorithm charts, TB 4 registers, presumptive registers among other TB recording and reporting tools.

More can be done

Much has been done, but more needs to be done with respect to **Electrocardiography (ECG)** monitoring. This is required for DR TB patients who are on the newly introduced shorter-term regimen (STR) and those who will be initiated on the new molecules- Delamanid and Bedaquiline.

As part of the minimum standards for quality DR TB patient management, **audiometry** is required to monitor the hearing of patients who may suffer hearing loss as a side effect of treatment. Currently, the county only has one active audiometry machine now serving 98 DR TB patients. This has hampered the provision of quality care. The county urgently requires at least two additional audiometers to improve coverage.

Next steps

Development of well packaged information materials for adherence counselling for TB patients. The document will be more structured and have more details that patients can follow easily.

Ms Mueni envisions a county where; Every TB patient will be offered Gene Xpert as the first test for diagnosis and a city free of new TB infections.

She appreciates the support accorded to the county so far and would like to continue with this partnership so as to reduce the TB burden in Nairobi County.

Ms Mueni envisions a county where every TB patient will be offered Gene Xpert as the first TB diagnosis test and a city free of new TB infections.



Cabinet Secretary for Health Hon Sicily Kariuki officially kicks off the final match of the 'Mulika TB Tournament' during World TB Day 2018.



Participants during the Data Synthesis Workshop held in Naivasha in March, 2018 supported by WHO Kenya office



A lab technician transfers a sputum sample from a falcon tube for testing using the GeneXpert machine

TB ARC Paediatric Advisor, Dr Teresiah Njoroge explains TB in children to a visitor at the CHS exhibition booth during the 2018 KPA Conference in Mombasa



A nurse performs a Nasopharyngeal Aspiration to obtain a sputum sample from a three-year old boy at Siaya County Referral Hospital.



WHO TB Advisor, Dr Enos Masini addresses participants during the TB/HIV Stakeholders meeting held at Radisson Blu, Upper Hill- Nairobi



Corporate TB Model: Why investing in TB makes Economic Sense



CEOs discussions during the Breakfast forum on integration of TB into workplace wellness programs in Mombasa on February 13, 2018

September 2017 saw Centre for Health Solutions – Kenya (CHS) roll out an intervention targeting the private sector through the TB ARC activity. This was as a result of the outcomes of the 2016 Prevalence survey which outlined that 40% of TB cases were being missed hence the need for accelerated case finding. Generally, majority of the productive male population (24-35 years) was found to have TB as compared to their female counterparts.

According to the World Health Organization (WHO), TB is a global fatal disease that leads to a decline in worker productivity of almost US \$12 billion annually. There is the further loss of household income as a consequence of pre-mature deaths caused by TB. Subsequently, this finding informed the approach targeting the workplaces where this population would be found. By engaging in TB control activities, corporates will experience: reduced absenteeism, reduced cost on health-related labour losses and have healthy happy workers hence, higher productivity.

Objectives of the initiative

The aim of the corporate model of TB programming is increasing prevention of TB among workers and their families. At the same time, it aims at intensifying efforts to find missing TB cases by collaborating with the corporate sector through public-private partnership.

Through the Corporate TB Model, Corporates will experience reduced absenteeism, reduce cost on health related labour losses and have happy workers hence, higher productivity

Corporate TB Model

The project is leveraging on the synergy between County Health Departments, Government of Kenya line Ministries, Corporates and other key actors. CHS has developed strategic partnerships with the Private Sector Consortium organisations comprising of: Central Organization of Trade Unions (COTU) Swedish Workplace HIV and AIDS Programme (SWHAP), Federation of Kenyan Employers (FKE), National Organization of Peer Educators (NOPE), Highway Community Health Resource Centre, Stop TB Partnership Kenya and International Labour Organization (ILO).

Activities carried out

The project conducted TB awareness activities as part of occupational employee health education, advocacy on TB control by sensitising the corporates' management teams, screening and referral of employees with TB to the nearest health facilities for further diagnosis, treatment, care and support. In addition, it supported the identified TB patients throughout the treatment by directly observing their treatment.

CEOs breakfast forum

Through the USAID-funded Tuberculosis Accelerated Response and Care (TB ARC) activity, CHS convened two CEOs breakfast events under the theme 'Workplace Wellness as an Enabler of Enhanced Sustainable Businesses.' These events targeted private sector senior management teams in Nairobi and Mombasa Counties respectively. The objective of the meetings was to engage and dialogue with decision makers in the business sector on emerging workplace wellness programs for purposes of integrating TB into existing wellness policy frameworks.



Employees of All Pack Industries Limited in Machakos County during a TB screening activity in March 2018

Setting the pace at the start of the meeting, CHS Advocacy Officer Rose Wandia said, "If not detected early, TB at the workplace reduces productivity, many working hours are spent on treatment, there is potential profit loss and loss of about 15 years of household income as a consequence of pre-mature death caused by TB."

So far, the screening has been done in Mombasa, Kilifi, Machakos, Baringo and Kajiado counties. The companies where the intervention was conducted include: agricultural companies, a manufacturing company and a long-distance truck drivers company.

Case of Corporate TB Model Outreach on Active Case Finding Rea Vipingo Firms: Kilifi County

Active case finding of TB was conducted in Kilifi County at Rea Vipingo in Kilifi South Sub County. Both clinical screening, X-ray and Gene Xpert methods were applied during the screening. The activity was conducted over five days from September 19-23, 2017. A sensitisation was held followed by screening of the workers who were also encouraged to bring their families for screening.

All the participants went through TB screening (using the four key questions). Those with presumptive indicators were linked for the chest X-ray on site, while a sputum sample was collected for GeneXpert testing at Kilifi County Hospital. One child (eight years) was found to have features suggestive of TB from the X-ray and was put on treatment. Three of the abnormal X-ray films results were suggestive and they were put on treatment.

Active Case Finding - All Pack Industries, Mlolongo Machakos County

After the CEOs forum, there has been great buy-in on the TB integration model. As a result, the management of All Pack Industries organised for sensitisation and screening of their employees from March 13 to 14, 2018 and March 20 to 21, 2018 respectively.

Following the activity, 206 workers were screened, including the senior management, thanks to the persuasive team that did the sensitisation. Ten abnormal X-rays were found to be presumptive for TB. One male had positive GeneXpert results. The Athi River SCTLC, Chris Mutuku is following up on the results.

The All Pack Industries Company Nurse, Veronica Emma, is in constant touch with Chris Mutuku together with CHS Advocacy Officer, Rose Wandia for technical support with regards to TB integration in the company's wellness program. She hopes to have many other sessions in future to ensure that all the employees are healthy and free from TB.

1,077 private sector employees screened for TB, 994 Chest X-rays done, 328 sputum samples collected, 12 confirmed TB cases

TB ARC Support for Stop TB Partnership - Kenya



Chief National Coordinator, Stop TB Partnership - Kenya, Evaline Kibuchi makes a presentation during the ARASA meeting in South Africa



Naomi Wanjiru, one of the TB advocates from Kenya shares her story during the advocates training in Ghana

With support from USAID, TB ARC has continued to support the STOP TB Partnership - Kenya (STP-K) to build its capacity through administrative and logistical support. This has enabled the smooth running of the STP-K office providing the current STP-K staff with the required capacity to carry out their functions.

The TB ARC communications team supported STP-K to manage its website and social media channels through coaching and mentorship. Through this support, the STP-K website is now robust and with a vibrant social media presence.

With TB ARC support, STP-K has been able to conduct some governance activities; quarterly STP-K Coordinating Board meetings, monthly STP-K Executive Committee meetings, development of STP's Constitution & Board Governance documents as well as review of STP-Kenya's work plan and budget.

On the other hand, STP-K has supported the NTLD - Program in policy formulation and national processes.

Activities carried out by STP

- Participation in the African Parliamentary TB Caucus Summit in Ghana whose objective was to prepare a position paper for Members of Parliament in the African region in preparation of the head of states UNGASS meeting in 2018. 21 MPs from the region were in attendance.
- Recruitment of Coordinator for the African TB Caucus
- A grant of USD 7,418 given to STP-K to conduct a training of TB champions in partnership with Global Stop TB Partnership, Afro Global Alliance for three days 8-10 July 2017. Stop TB Partnership-Kenya was the lead technical organisation whose responsibilities included:
 - Development of training curriculum, content and conducting trainings.
 - Together with the other partners recruit and select trainees for the training.
- Participation in the Human Rights Conference organised by ARASA in South Africa which sought violation of TB related human rights among Key Populations

- STP-K attended the Bangkok Global Advocates meeting whose objective was to bring together advocates from around the globe in preparation for the 1st WHO Global Ministerial Conference.
- Ending TB in the Sustainable Era in Moscow November 2017 and the Head of states UNGASS meeting in 2018.

Involvement in the UN HLM

Stop TB Partnership-Kenya is actively engaged in this year's United Nations High Level Meeting (HLM). This meeting, usually hosted by the UN, brings together Heads of States and Governments from across the world.

Significance of the UN HLM

This will be the first meeting of Heads of state and Heads of Government exclusively regarding TB. It will shape the international response to TB for the next decade. The 2018 UN HLM will be held in New York and STP-K will be in attendance.

This is a platform to ensure that TB issues are prioritised globally.

**The UN HLM will shape
the international
response to TB for the
next decade**

Child-Friendly Medicines Make TB Treatment Easier – Chelsea's Story

Three-year-old Chelsea's eyes shine bright, twinkling like two little stars. She is so full of joy that everyone around her cannot help but be happy too. She skips up and down on seeing Violet Chemesunde, a Community Health Volunteer (CHV) whom she has come to know quite well.

Chelsea's grandmother Norah describes how in mid-March 2016, Chelsea would pant for breath and sweat heavily at night. She lost her appetite and consequently lost quite a lot of weight. Chelsea's mother initially claimed that she had asthma. However, her grandmother felt that there was more to this than just asthma. The situation got worse, but she did not give in to despair.

She decided to take her to a health facility in Kibera for a medical check-up. There, she was treated for pneumonia and given medication. In addition, Norah was referred to St Mary's Hospital for further investigations. There, a chest X-ray was done alongside an HIV test.

That is when Chelsea was diagnosed with TB. She was immediately started on treatment for six months, through to September 2016. The other three children under Norah's care were also tested for TB and the tests were negative.

Norah had to ensure that Chelsea took her medications appropriately and on time. She would administer the medication every day at 3.00PM and was very optimistic that Chelsea would make a full recovery.

"For the first two months, I gave her four tablets. For four months after that, the medication reduced to two tablets. Chelsea was not afraid of taking medicine," Norah says smiling at her granddaughter. "This made it very easy for her to take her medication."

Sigh of Relief

Two days after she started her medication, Chelsea experienced some relief. She slept soundly for the first time after difficult nights. Before, her cough was so bad such that she often fell off her bed when she experienced a bout of cough.

With continued use of the medication, Chelsea's cough ceased, and the night sweats reduced drastically. However, she still continued to lose weight and became feather-light. This prompted her grandmother to seek nutritional advice.

Chelsea was so malnourished that she had to be given porridge and peanuts to supplement her daily diet. "Violet would visit me every week, sometimes even twice in a week," she says referring to the CHV who supported her through the whole journey.

Violet Chemesunde is a CHV who is very passionate about health issues. She is attached to Kibera South Health Centre and conducts health education and home visits within Kibera. She educates the community on adherence to medication, hygiene, contact tracing, modes of disease transmission and prevention and referring presumptive TB cases to the health facility for screening.

To successfully carry out the tasks of a CHV, one needs to build trust and become more of a friend to those they support. Her friendship with young Chelsea is evident as she plays around her.

Finding children with TB

"I work closely with the CHVs in contact tracing and defaulter tracing," Kibra Sub County TB and Leprosy Coordinator, Sarah Chandi says.

She reiterates that CHVs have been instrumental in Active Case Finding in Kibra Sub-County. They refer all presumptive TB cases to the nearby health facilities and follow up to ensure that the confirmed cases are not lost.

Chelsea, who was among the first children to be treated using child-friendly TB medicines before the national rollout, has completed her treatment and is cured. She is now an active and healthy girl in kindergarten and doing well in school.

Previously, children with TB like Chelsea did not have access to TB medicines in a form that was easy for them to take. Caregivers like Chelsea's grandmother Norah had to split and crush multiple pills to achieve the right dose for children. Children had to swallow the bitter-tasting pills, which were not soluble in water. It was difficult to determine whether they were receiving the correct dose of medicines. Ultimately, this made TB treatment ineffective and increased the rates of drug resistant TB in children.

The child-friendly formulation is a combination of drugs used to treat tuberculosis and is fruit-flavoured to appeal to children. Through the National TB, Leprosy and Lung Disease Program (NTLD-Program) and with the support of CHS and other partners, Kenya became the first country in the world to roll-out the improved child-friendly formulations of TB drugs on a national scale.

This means that children like Chelsea can now take fewer pills, which taste better, simplifying and improving their treatment journey. In 2017, 7,771 children between the ages of zero and 14 years of age were treated for TB.



Chelsea at her grandmother's shop in Kambi Muru - Kibra

Recognising Hidden Talents through the Fight Against TB



Hezron's painting on how to fight TB in the community

Young Hezron enjoys drawing and painting, a hobby that has caused him to develop a keen interest and an eye for detail in his surroundings and community. He gets his inspiration from drawings and pictures on textbooks, story books and other art. Earlier this year, his talent saw him emerge the best student in Mombasa County in the art competition titled 'How I Will Fight TB in my Community'.

The competition was part of a TB school health program where with the support of TB Alliance, CHS and the NTLD-Program working through county and sub-county TB coordinators, engaged school children from six high-burden counties, providing them with information on TB and distributing educational materials. Twenty schools were selected from Nairobi, Mombasa, Nakuru, Meru, Kiambu and Turkana respectively and enrolled in an essay and art competition, aimed at establishing how well the children had assimilated the information. Pupils with the top three essays and the best artwork from each county were awarded individually and won their respective schools' different awards ranging from textbooks, storybooks, stationery, art material and a computer for the school with the winning essay.

This Class Six pupil from Kadzandani Primary School in Mombasa County did not just work on the painting for fun, but also with an aim of educating his fellow pupils and the community at large. He explained eloquently during the interview that in the painting, he was illustrating how he would fight TB in his community depicting this in three ways. For the first image, he illustrated the need for treatment adherence where he painted an image of a school pupil carrying TB medicines. The second image illustrated the need for community engagement by use of a painting showing an opinion leader educating a crowd. The third image illustrated the need for taking preventive measures such as opening of windows to allow for the free circulation of air.

His winning art work was enlarged and painted on one of the school walls. "I was excited to win in this competition, now all the students in school can easily recognise and identify with me as well as learn from the painting," he said. During the August school holiday, Hezron and a few of his friends had a one-on-one session with the professional artist who transferred his work from paper to wall.

"The artist taught us how to mix primary colours to achieve secondary colours and how to enlarge images from paper size to large surfaces like walls and banners," a thrilled Hezron said. He also learnt how to use logos to represent brands and how to create backgrounds on various images.

The second born child in a family of six was grateful for the individual painting pack awarded to him that included art books, coloured pencils, paint brushes and a pencil pack. The pack has allowed him to practice more painting while at home with his siblings. His mother was pleasantly surprised to learn of his win as she had not fully realised that her son was that smart and talented.

"I was surprised that all along Hezron had been working on wonderful paintings, I used to see him sketch some images and thought that it was all for fun," his mother said.

The boy who comes from an underprivileged background wants to be a doctor when he grows up, an ambition that is clearly reflected by his keen interest in TB matters. We learnt from the teachers that Hezron is equally smart academically and is always top of his class.

TB Alliance (also known as the Global Alliance for TB Drug Development) is a non-profit organisation dedicated to the discovery and development of better, faster-acting, and affordable tuberculosis drugs that are available to those who need them. Following the introduction of child-friendly TB medicines, TB Alliance supported Kenya's efforts to roll out and promote uptake of these medicines.

The support from TB Alliance was towards promoting advocacy and communication efforts targeting caregivers, health care workers, maternal and child health development partners, as well as the public. The school health activity was an important component of this support as it leveraged the role of children as agents of change due to their vocal power and influence within the family setting.

Active Case Finding Among Injecting Drug Users in Kwale County

In the company of three TB ARC staff and the Msambweni Sub County Tuberculosis, Leprosy and Lung Disease Coordinator (sCTLC), we followed a narrow path leading to a drug den in Kinondo area, Kwale County. The walk was one that needed sheer courage; we had earlier been advised to wear closed shoes, cover up our bodies fully and avoid carrying valuables such as phones or cameras. We had followed this directive and it was at this point that the guidance became clear as we counted used syringes strewn all over the path.

The path was cut out from scrubland running all the way to a bushy area. From the main road, it was hard to guess that there were people who resided in, leave alone visited, the forested area. Half-way through the path, we began to come across shaggy looking people walking past us; one after the other, they carried small bags and would suspiciously glance at us. The contents of the small bags were bread and milk, which we are informed have been given to them as an incentive for testing.



Health care workers at the screening site

We could now spot a crowd from a distance and the sCTLC informed us that we had reached the screening site. Clinical Officers were busy testing for TB, HIV and Hepatitis C. On reaching the area, a group of the drug users approached us and asked if we could give them money to buy more food. As we engaged them, they explained that they had families that relied on them for survival. "I have a family of three children and a wife and I am the sole bread winner," one of them explained. They went ahead to tell us that apart from providing food to their families which is a costly affair, they require an extra Kshs 500 daily to sustain their drug habit. Majority of them are business men engaging in businesses such as selling curios to tourists along the beach while others sell unripe coconuts popularly known as 'madafu' on the streets to make a living.

Kenya's Drug Abuse Background

Drug and substance abuse is a major challenge facing the youth in Kenya; a problem mainly attributed to high youth unemployment rates. The most commonly used drugs are bhang, marijuana, cocaine, heroin, alcohol, tobacco, inhalants and hashish. The use of these drugs involves either smoking or injecting which leads to an increased risk of exposure to diseases such as HIV/AIDS, Hepatitis C and TB. The environment in which they come together to indulge in this habit is also a contributing factor. It is usually poorly ventilated resulting in poor air circulation that breeds the bacilli.

A baseline survey conducted by the National Authority for Campaign against Alcohol and Drug Abuse (NACADA) in 2016 showed that 29.3% of residents in the Coast Region are currently using at least one substance of abuse. Mombasa County is leading in current use of at least one substance of abuse at 34.4%, followed by Lamu at 32%, Tana River at 31.1%, Kilifi at

29.7%, Kwale at 26 % and Taita Taveta at 20.7%. Msambweni zone in Kwale County has a population of over 1,500 people who inject drugs. Majority of them reside in Diani, a TB 'hotspot' which has recorded the highest TB case notification rates at 404/100,000 men and 204/100,000 women respectively compared to Kwale County 135/100,000 men and 62/100,000 women respectively.

In the first half of 2017, three cases of TB among people who inject drugs were identified with one case of mono drug resistance identified in the last quarter of 2016. In light of this, the USAID-funded TB ARC activity has been supporting several active case finding activities in a bid to identify TB cases among this key population.

The NACADA baseline survey indicates that the proportion of drug users who have ever sought medical attention following the use of selected drugs in the Coast Region in the last one year is very low. Findings reveal that out of those who had used heroin, only 27.5% have ever sought medical attention.

USAID Supported TB ARC Intervention

The screening aimed at sensitising drug users on TB right from their dens and investigating the presumptive cases for both drug sensitive and drug resistant TB by visiting the areas where the users go for needle exchange. TB education, TB screening and sputum sample collection for examination using GeneXpert technology was done. During the exercise, those that showed symptoms of TB were linked to nearby facilities through Peer Educators for further screening. There were 947 tested, 41 of these presented TB symptoms, 38 sputum samples were collected and out of these, three (3) TB cases were detected. The drug users were grateful for the screening saying, "We appreciate the support by TB ARC in reaching out to us and screening us as we had no idea that we were so much at risk." They all had hopes of quitting the use of the drugs however, they always relapse because of being idle.

This screening exercise was timely and important especially considering the findings of the recent prevalence survey that showed that of the 40% of TB cases being missed, majority of are among men aged between 24 and 35 years of age. This has been mainly attributed to their poor health seeking behaviour.

The exercise was done in collaboration with Teens Watch, a youth ministry funded by the Kenya Red Cross that aims at rehabilitating and getting young people out of drugs and substance abuse. The facility offers a needle exchange program for people who inject drugs.

The USAID funded TB ARC activity is supporting active case finding activities in the country in a bid to find the missing TB cases.



TB ARC Coast Regional Officer, Godana Mamo and CHS TB/HIV Advisor Evelyne Ng'ang'a at the drug den



*Working together
to reduce Kenya's
TB burden*



Tuberculosis Accelerated Response and Care (TB ARC)

Goal

To reduce the burden of TB in Kenya

TB ARC Consortium Partners

- Centre For Health Solutions – Kenya (CHS)
- PATH
- Safaricom
- Tangazo Letu

TB ARC Sub-Recipients

- Kenya Association for the Prevention of Tuberculosis and Lung Diseases (KAPLTD)
- Kenya AIDS NGO's Consortium (KANCO)

Project Principles

1. Fostering country ownership
2. Investment for impact
3. Multi-sectorial involvement
4. Building on existing systems
5. Optimal management of project resources

Objectives

1. To ensure NTLD-Program is supported to provide reliable leadership and coordination of TB services in Kenya
2. Ensure development, implementation and scale-up of new TB program areas
3. Ensure local adoption and scale-up of globally proven TB interventions
4. Ensure technology driven programming and monitoring of TB services in Kenya Goal

If you have any feedback or comments please contact
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