



Increasing **M**arket and **P**ublic health outcomes
through scaling up **A**ffordable **A**ccess models
of short Course preventive therapy for **T**B

IMPAACT4TB Success stories from 4 countries

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ETHIOPIA

TANZANIA

MALAWI

INDONESIA

INTRODUCTION AND PROGRESS IMPAACT4TB

Tuberculosis infection (TBI) occurs when a person is infected with *Mycobacterium tuberculosis* but does not have active tuberculosis (TB). Unlike active TB disease, TBI is not contagious. Approximately 10% of people with TBI will, however, go on to develop active TB disease in their lifetime. Individuals with TBI are, therefore, a reservoir of potential future active TB disease within the population: this may lead to new TB outbreaks. People with a suppressed immune system due to underlying conditions such as HIV or diabetes, or because of advancing age have the greatest risk of developing active TB disease. To control TB, it is, therefore, important to identify persons who may have TBI and to treat them with TB preventive treatment (TPT) to stop TBI developing into, contagious, active TB disease in the future. That is why during the UN General Assembly high-level meeting on tuberculosis in 2018, the Assembly adopted the declaration that by 2022 at least 30 million people should have received TB preventive treatment (TPT), including 4 million children under five years of age, 20 million other household contacts of people affected by TB, and 6 million people living with HIV (PLHIV).

KNCV has been an implementing partner of the Aurum Institute led, Unitaid funded, project called **I**ncreasing **M**arket and **P**ublic health outcomes through scaling up **A**ffordable **A**ccess models of short Course preventive therapy for **T**B (IMPAACT4TB). Other partners in this consortium are the Clinton Health Access Initiative (CHAI), Johns Hopkins University, Treatment Action Group (TAG), and the World Health Organization (WHO). The goal of IMPAACT4TB has been to scale-up short-course rifapentine-based TPT among high-risk groups: PLHIV and child contacts of persons with active TB disease and, thereby, to reduce TB incidence and deaths. Additionally, the project aims to contribute

to revising WHO TPT management guidelines based on evidence generated from this project.

The project was initially focused on 3HP, a short-course TPT regimen of isoniazid and rifapentine taken weekly for three months to treat of TBI. The IMPAACT4TB project started with a clinical study that ascertained the safety of co-administering and dosing of 3HP and an anti-retroviral treatment (ART) called Dolutegravir (DTG). Following the success of the study, Unitaid and the IMPAACT4TB project led negotiations that resulted in global rifapentine price reductions in 2019 and 2021. In parallel, the project facilitated the introduction of 3HP as an additional TPT option for PLHIV and household contacts of TB patients in 12 project countries (Brazil, Ethiopia, Cambodia, Indonesia, South Africa, India, Zimbabwe, Kenya, Malawi, Mozambique, Ghana, and Tanzania). KNCV, in close collaboration with national TB and HIV programs and local stakeholders, has been supporting the introduction of 3HP in Malawi, Ethiopia, Tanzania and Indonesia.

Unitaid and the IMPAACT4TB consortium also collaborated with PEPFAR, USAID, CDC, the Global Fund, and other stakeholders to accelerate wider scale-up of the 3HP regimen. These efforts contributed to wider adoption of short course-TPT and procurement of rifapentine-based TPT by at least 47 additional countries by the end of June 2022. KNCV is also implementing research to ascertain further evidence to support the expansion of short-course TPT coverage. This includes research on improved TPT service delivery models in child contacts (Ethiopia) and PLHIV (Malawi) and comparing the effectiveness and safety of the 1HP regimen vs. the 3HP regimen in HIV-negative household contacts in Indonesia.



ETHIOPIA

Background

Ethiopia is a land-locked country in the horn of Africa with a land area of 1,100,000 square kilometers. The country has an estimated population of 115,000,000 people.

Ethiopia is classified as a low-income country by the World Bank with a per capita income of 2,410 USD in 2020.

TB in Ethiopia

TB is a major public health problem in Ethiopia. The WHO estimates that 151,000 Ethiopians develop active TB disease each year (WHO estimates of TB burden, 2020). TB among PLHIV is relatively low compared to most sub-Saharan countries due to Ethiopia's lower HIV incidence; nonetheless, every year approximately 10,000 Ethiopian PLHIV develop active TB disease (WHO estimates of TB burden, 2020). TPT coverage was consistently sub-optimal.

IMPAACT4TB in Ethiopia

IMPAACT4TB's Ethiopia project, implemented by KNCV, focused on the introduction and implementation of the 3HP regimen in the country.

In collaboration with the Ethiopian Ministry of Health (the Federal HIV / AIDS Prevention and Control Office and the Ethiopian Pharmaceutical Supply Agency), KNCV, procured and imported rifapentine into the country and started 3HP treatments in selected target sites. Collaborating with partners working on

HIV and TB programs, CDC/ PEPFAR, ICAP, WHO, USAID-ELIMINATE TB, CHAI and USAID-GHSCP, the IMPAACT4TB project played a key role in improving the TB contact investigation and TPT service in Ethiopia.

The IMPAACT4TB project supported the development of TB infection treatment guidelines, an addendum to the HIV & TB guidelines, adaptation of training materials, job aids, client support tools on short course TPT and training of health care providers at multiple levels.

Starting in 2020, the IMPAACT4TB project implemented the 3HP regimen in 150 health facilities in two phases across 55 woredas and towns in Oromia, SNNP, Sidama Regions and Addis Ababa city administrative areas. Since August 2020, a total of 13,119 PLHIVs and 3,764 child contacts (< 15 years old) have been initiated in 3HP treatments in the 150 facilities supported by IMPAACT4TB project. This represents 62% and 49% of clients who received 3HP as TPT. By the end of the IMPAACT4TB project in 2022 the Ethiopian Ministry of Health granted full authorization for the national implementation of the 3HP regimen for both PLHIV and child contacts (< 15 years old).

The WHO estimates that 151,000 Ethiopians develop active TB disease each year

**THREE
STORIES
FROM
ETHIOPIA**

Story 1: “It can be challenging to convince a family to give drugs to a healthy child”

First off, we spoke to Sr. Shewaye, TB focal person and care provider in Bishoftu Hospital in Addis Ababa, Ethiopia. “It has been a year since I started working in this TB clinic. I perform contact investigations for index TB patients with active infectious TB. I make a list of the index TB patient’s family members – including household and close contacts – and ask the index patient to bring the contacts to the hospital for TB screening.



Sr. Shewaye
at her TB clinic

Photo Chaltu Muleta

Previously, child contacts of bacteriologically confirmed index cases would be prescribed IPT. But now, the treatments are only three months; 2–15-year-old children are prescribed 3HP drugs (isoniazid & rifapentine) administered weekly and children under two years old are administered 3RH drugs (rifampicin & isoniazid) administered daily.”

Shewaye notes it can be challenging to convince a family to give drugs to a healthy child on a daily basis. “It was particularly difficult to convince them to give the medication for six months. Now, after the short course regimens have been introduced, it is easier to convince a family to start the treatments.”

“While all types of treatment recommended by WHO for TB infection are effective, healthcare providers should prescribe the more convenient and shorter regimens whenever possible,” Shewaye adds. “Patients are more likely to complete a shorter treatment regimen.”

Asking Shewaye if she sees any downsides to the innovative short-course regimen, Shewaye says she has not observed any side effects among her patients taking isoniazid and/or rifapentine. “Since I started working here, however, the challenge I sometimes face is a drug shortage of either rifapentine, isoniazid (INH) 100 mg or vitamin B6 as I dispense loose tablets.”

Story 2: “I encourage others to provide their children with TPT”

Secondly, we spoke to Mekdes, a mother of two. “I was diagnosed with TB by GeneXpert in Addis Ababa. At that time, the TB focal point at the hospital informed me that my two children must be assessed for active TB disease and, if they did not have active TB disease, provided with TPT. I brought them to the TB clinic and fortunately both their screens came back negative for active TB disease.”



Mekdes
with her children
at the TB clinic

Photo Chaltu Muleta

“I was counseled on TB preventive treatment for my children,” Mekdes continues. “I agreed and took the daily administered medication home for my four-year-old child the same day. However, I was not convinced... So, I informed my husband, who lives abroad. He wasn’t convinced yet either. I turned to other health professionals for their view on TPT. The first health professional I consulted worked in another facility. He told me, “how can they give you drugs for a healthy child? This is not right!” Based on that, I decided not to give the treatment and stored it at home.”

“I went back to Addis Ababa to seek advice from another doctor,” Mekdes says: “He told me: “This drug helps the child prevent further progression of TB. So, you have to start giving

it.” When I went back to my nurse in Bishoftu Hospital I told her my children hadn’t started the TPT yet. I explained my reason and apologized. She again counseled me and I started giving my son the treatment. I haven’t observed any side effects while he was taking his medication. My other child started the preventive treatment a month later. She takes it every week and is doing well very well.”

Mekdes says she had been experiencing TB symptoms for a month before the disease was diagnosed. “I believe that if there’s a preventative treatment for TB, it is better to take it than to wait and worry about whether your children will catch it or not. I personally encourage others to provide their children with TPT, just like I did.”

Story 3: “I feel relieved knowing the children were able to start TPT”

Lastly, we talked to Genet, whose husband was diagnosed with active TB disease. They have two children. “My husband was sick for around two months before his TB was diagnosed. When he started his TB treatment at Bishoftu Hospital, my husband was told to bring his family members, including his children, for a checkup. The TB focal person informed us that all children who live with a active TB disease patient should start TPT, even if they show no symptoms of TB themselves.”



Genet
with her children
at Bishoftu hospital
TB clinic

Photo Chaltu Muleta

Genet admitted she was worried about the health of her children. “We all live in the same house, and the children are close with their father. So, we decided to let the children undergo TPT. I brought both children back to the hospital to start the treatment. Our elder girl took the weekly-administered treatment for three months and completed it. Our younger daughter took the daily administered treatment

for three months and also finished it.”

“I feel relieved knowing the children were able to start TPT,” said Genet gratefully. “I thank the nurses for counseling us and initiating the treatment. I am very glad that we all came to the hospital and were screened for active TB disease and had a negative result, that our children had the TPT and that my husband completed his treatment for active TB disease.”



INDONESIA

Background

The Republic of Indonesia, is a country in Southeast Asia and Oceania between the Indian and Pacific oceans. It consists of over 17,000 islands. Indonesia is the world's largest archipelagic state with a land mass of 1,904,569 square kilometers. With over 275 million people, Indonesia is the world's fourth-most populous country. Approximately, half of the country's population lives on one of the many islands, namely, Java.

Indonesia is considered to have an emerging middle-income economy with an average of 4,291.8 USD per capita income (in 2021 per the World Bank). Indonesia has cut its poverty rate in half since 1999 to 9.8% in 2018.

TB in Indonesia

Tuberculosis (TB) is a major public health problem in Indonesia with 824,000 people per year developing active TB disease (WHO estimates of TB burden, 2020). TB among PLHIV is relatively low compared to other high burden TB countries (especially compared to sub-Saharan Africa) due to relatively low HIV incidence; nonetheless, every year approximately 18,000 Indonesians living with HIV

develop active TB (WHO estimates of TB burden, 2020).

IMPAACT4TB in Indonesia

The IMPAACT4TB project in Indonesia supported delivery and scale up of 3HP delivery for PLHIV and child contacts. In 2020, the IMPAACT4TB project was implemented in DKI Jakarta. Previously, the project had modest targets to provide 3HP to approximately 10,000 people. However, as they moved to national scale-up the targets were greatly expanded and is expanding further. To date, health facilities now provide 3HP as per national policy for PLHIV and child contacts 2-15 years old. National roll out is expected by the end of 2022.

Every year
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**A STORY
FROM
INDONESIA**

Story: Protecting families of TB patients with TPT

Mr. Patih Natawijaya is a middle-aged man from Kramat Pulo in the Senen District of Central Jakarta City in the Indonesian province of DKI Jakarta. Mr. Patih and his family have completed the three-month long Tuberculosis Preventive Treatment (TPT) consisting of isoniazid and rifapentine taken weekly, known as the 3HP regimen.



**Mr. Patih
Natawijaya**

Like most people, Mr. Patih was unfamiliar with TPT and had no idea what it was. He was first introduced to 3HP by healthcare workers from Puskesmas Senen. The doctor informed him that he would be eligible for the TPT treatment.

Initially, Mr. Patih wondered why he had to undergo a treatment for TB when he was TB-free. The doctor explained that it is because he lives with a family member diagnosed with pulmonary TB – his mother-in-law – and thus may have been exposed to TB.

“I had mixed feelings,” said Mr. Patih, “when the healthcare worker explained that my wife and child also had to complete the TPT because they are also in close contact with a TB patient and are at risk of contracting TB. They said that since my family and I live in a densely populated setting, TB can be easily transmitted from person to person.”

“However, my family and I felt incredibly lucky to receive 3HP after the healthcare worker explained the importance of TPT to prevent latent TB infection from developing into an active TB disease. I do not want my family and me to suffer from TB. TB can interfere with our activities, especially for my child, who is still growing and developing,” continued Mr. Patih.

To mobilize the prevention of TB through TPT, there needs to be collective awareness and support from everyone in the community. Regarding that, Mr. Patih has a message for Indonesian people: “to prevent TB disease, anyone who has come into close contact with TB patients should not hesitate to take TPT immediately. Especially now that we have the 3HP regimen, which only needs to be taken once a week for three months, and only 12 times in total”. 3HP is faster, safer, and easier. Even though we share a home with a TB patient, my family and I are at ease,” concluded Mr. Patih.



MALAWI

Background

Malawi is a landlocked country with a land area of 94,280 square kilometers. The country has an estimated population of 19,000,000 people and is divided into 28 districts. Malawi is prone to destructive climate risks including droughts, intense rainfall, and flooding. These climate risks, and the resulting displacement of people, exacerbate the challenges with the spread, identification and treatment of TB.

Malawi is classified by the World Bank as a low-income country, one of the poorest in the world, with a per capita income of 1,540 USD in 2020.

TB in Malawi

TB is a major public health problem in Malawi. The WHO estimates that 27,000 Malawians develop active TB disease each year (WHO estimates of TB burden, 2020).

PLHIV are particularly at risk of developing active TB disease, despite increasing access to ART. The WHO estimates that 12,000 PLHIV develop active TB disease in Malawi each year (WHO estimates of TB burden, 2020). Prior to IMPAACT4TB, TPT uptake in Malawi was low among both PLHIV and child contacts (< 5 years old). This weak TPT uptake may reflect the limited access to TPT in Malawi in the past. PLHIV TPT access was almost exclusively focused on the five districts (Lilongwe, Zomba, Chiradzulu, Blantyre and Thyolo), with PLHIV in the remaining 23 districts essentially having no access to TPT. Child contacts did, in principle, have access to TPT countrywide, however, coverage was consistently sub-optimal.

IMPAACT4TB in Malawi

IMPAACT4TB, executed a four-year project in Malawi, implemented by KNCV, to introduce and implement the 3HP regimen for PLHIV and child contacts in five districts: Mzimba north, Chikwawa, Mulanje, Nsanje, and

Mangochi. These five districts were selected in collaboration with the Malawian Ministry of Health, National TB Control Program, the National Action Plan (NAP) and key partners. The project ran from July 2017 to August 2022.

The IMPAACT4TB project started implementing field activities in Malawi in September 2018. These activities included conducting landscape assessments, selection of sites, quantification of 3HP, training of master trainers, TOT training, revision of guidelines, development of training manuals & job aids, branding of training manuals & job aids, training of service providers, service provision and conducting a series of start-up activities as a means of introducing the project to partners and other implementing partners. 3HP drugs were ordered and distributed. Supportive supervision and refresher trainings kept the capacity levels of health care providers high throughout the project.

By the end of the IMPAACT4TB project, the national stakeholders changed policies to include 3HP as a preferred regimen for both child contacts (< 5 years old) and PLHIV newly initiated on ART. The 3HP regimen has now been scaled up countrywide for the PLHIV newly initiated on ART. Child contacts are, however, still enrolled on the standard six-month isoniazid treatment (IPT) until a pediatric formulation of the 3HP regimen becomes available.

The WHO estimates that 12,000 PLHIV develop active TB disease in Malawi each year

**THREE
STORIES
FROM
MALAWI**

Story 1 from Mangochi district, Southern region, Malawi

Robert Mponda is a 60-year-old retiree. Formerly a driver for the National Bank of Malawi, Mponda is a father of five and lives in the district of Mangochi, in Malawi's Southern region. Mangochi is one of Malawi's most populous districts and a target district for IMPAACT4TB's 3HP project. Mponda is receiving ART and has successfully completed his 3HP treatment.



Robert Mponda is a retiree. Previously a driver for the National Bank of Malawi, Mponda successfully finished his 3HP treatment in September 2021.

Photo Moses Master

"Originally, I come from the area of the traditional authority Chimaliro, in the Thyolo district. I settled in Mangochi in 2005 when my former employer, the National Bank, posted me here for work. In 2021, I started feeling sick and thought I had malaria. My wife insisted that I go for a rapid malaria diagnostic test, however, I bought the malarial drug artemether-lumefantrine and I took that instead," Mponda recalls.

Mponda explains that his situation quickly worsened in July 2021:

"The situation was very bad, I could not even walk and collapsed. At this point, my wife convinced me to take an HIV test and I tested positive. At the same time as starting ART and after testing for, and ruling out, active TB, the healthcare workers at Mangochi district hospital immediately started me on the 3HP treatment. I was told the anti-TB drugs would protect me from developing active TB disease."

Mponda tells that he accepted the 3HP treatment after considering how effective the treatment is in preventing TB. Mponda aspires to live a healthier life and finds 3HP's shorter -three-month - duration made it easier for him to complete his treatment:

"I spent two weeks in the Mangochi district hospital because my health deteriorated. While there, I was told about the benefits of the 3HP treatment

and I didn't hesitate. I was told that I would be taking the drugs once a week for three months and realized it was good for me. I only experienced mild numbness in my feet after starting the treatment, but that went away in about three weeks," Mponda adds.

Mponda started on the 3HP treatment in July 2021 and successfully completed his treatment in September 2021. He encourages other men who are newly diagnosed HIV positive to immediately start the 3HP treatment. Mponda believes that this treatment is vital to stop TB from progressing to active TB disease and emphasizes that all eligible PLHIV deserve TPT.

Mponda also notes that the 3HP treatment drugs do not have significant side effects. Mponda thanks his wife for the support she has given him by feeding him good food such as peanuts, rice and other nutritious foods during his 3HP treatment. Before falling sick, Mponda weighed 90 kilograms. Due to the illness his weight fell to 65 kilograms, but he has now gained back his weight.

"I was very happy when healthcare workers told me that I had successfully completed 3HP treatment. The healthcare workers did a good job! I now farm again and I feel very strong." He adds: "If healthcare workers prescribe you drugs, don't hide or throw away the tablets—go and complete your treatment!"

Story 2 from Mulanje district, Southern region, Malawi

Linda Kabotolo is a 27-year-old woman with two children who hails from traditional authority Mabuka in Matekenya village in the Mulanje district. Linda runs a hair dressing saloon but struggles financially due to lack of income. In 2022 Linda was diagnosed with early stage cervical cancer and subsequently tested positive for HIV. Healthcare workers at the Mulanje district hospital started Linda on the 3HP regimen. This is Linda's story:



Linda Kabotolo is a young lady from the mountainous district of Mulanje, in Malawi's southern region. Linda successfully completed her 3HP treatment and she hopes to grow her small-scale business.

Photo Moses Master

"In May 2022, I came to the Mulanje district hospital. The healthcare workers discovered a cyst in my stomach that was diagnosed as early stage cervical cancer. I was told that I would be fine with the right cancer treatment. After some counseling, however, the health workers also administered an HIV test which was positive."

After her HIV diagnosis and once active TB disease had been ruled out, the healthcare workers recommended that Linda immediately start the 3HP regimen.

"At first, when the healthcare workers told me about the 3HP regimen, I was worried because people in the village say that when one takes a lot of drugs, one can go mad. In 2019, my husband abandoned me in for another woman. After that, I had no one close to break the news to except for my sister. She urged me to start and to complete the treatment", explains Linda.

After considering her options, Linda decided to undergo the 3HP treatment due to the short duration of the 3HP regimen. Linda was greatly surprised that, after taking the 3HP drugs, her chest felt lighter and her body felt more

energized.

"I saw the pills and asked myself, how could I finish all these tablets? But I had no side effects from the 3HP drugs. What people say in the village, that taking many drugs causes madness, is not true. I can tell you that, before my treatments, I was bedridden for three months. I wasn't feeling well. After taking the antiretroviral medicine and completing the 3HP treatment I felt stronger and had lots of energy. If I had delayed the treatment things could have been much worse" explained Linda.

Linda also adds, "as a young woman I encourage other young women to go to hospital early and not to delay diagnoses and treatment. HIV therapies and TB treatments such as the 3HP regimen can save your life. Women of my age should not be afraid.

Linda started her 3HP treatment in April 2022 successfully completed her treatment in June 2022. To earn a living, Linda plans to diversify her business, selling second-hand clothes in addition to her hairdressing saloon. For now, she still braids hair for her customers at home to support her two children.

Story 3: Delivering 3HP amidst the COVID-19 pandemic

Francisco Mwicha is a young healthcare provider who tells us about his work to provide 3HP treatments to eligible PLHIV at Nsanje District Hospital. Mwicha has been stationed at the hospital since 2019. He was among the first healthcare providers trained by KNCV to help provide 3HP treatments.



Grey Malata is the ART Coordinator at Nsanje District Hospital and praises the introduction of the 3HP regimen for boosting treatment completion rates.

Photo Moses Master

“Before KNCV introduced the 3HP regimen [at Nsanje District Hospital], we only used IPT and it was difficult to make patient follow ups. But with the 3HP regimen, it is easier to follow up due to the shorter duration. In the past IPT was causing skin dermatitis and diarrhea. Now, clients prefer the 3HP treatment to IPT,” tells Mwicha, a clinical officer. Mwicha adds that the emergence of COVID-19 deeply affected him emotionally as a healthcare provider because of the deaths of loved ones. Mwicha relates how COVID-19 caused fear and panic among patients and healthcare providers alike. Using anecdotal observations, he also adds that KNCV’s introduction of the 3HP regimen has drastically reduced cases of active TB disease at the facility and that now, unlike in the past, there are very few cases. “Without KNCV, active TB disease cases could have increased due to the impact of COVID-19. COVID-19 caused a lot of interruptions because clients were afraid of catching COVID-19. They, therefore, sent guardians such as friends or family to the hospital on their behalf. However, we can only assess the actual client. This was a big challenge for our service delivery.”

With the Malawian government scaling up the 3HP regimen countrywide for PLHIV, Mwicha recommends a robust national capacity building plan for TPT. “We should have skilled and knowledgeable healthcare providers who are updated regularly and understand the

3HP regimen and all the algorithms.” One of Mwicha’s colleagues, Grey Malata, the ART Coordinator at Nsanje District Hospital, agrees with the need to sustain the 3HP regimen across Malawi. Malata believes that, in order to prevent active TB disease and reduce deaths, all PLHIV, household contacts and other eligible persons must have access to 3HP treatments.

“What I have seen is that the 3HP regimen, being a shorter, has made it easier for patients to complete their treatment compared to the six months of IPT. In the past, before the 3HP treatments came here to Nsanje, many patients discontinued IPT due to its long duration. Now with the 3HP regimen, and the new 3HP FDC, the pill burden is significantly reduced. For me, the 3HP FDC is a gamechanger,” stresses Malata. Malata also adds that a number of patients desperately want the 3HP treatment due to its’ shorter duration. Unfortunately, some of Malata’s clients are ineligible for the 3HP regimen due to breastfeeding or other comorbidities such as diabetes.

“We have patients who want the 3HP treatment but we are not able to put them on this regimen due to contraindications such as pregnancy and breastfeeding. We explain why they cannot put them on this shorter treatment, and they do understand, of course, but they get disappointed,” tells Malata.



TANZANIA

Background

Tanzania is an East African country within the African Great Lakes region. Tanzania borders the Indian Ocean to the east and Lake Victoria to the North. It has a land area of approximately 945,087 square kilometers, including islands in the Indian Ocean (the largest of which are Zanzibar, Mafia and Pemba) and on Lake Victoria. Mount Kilimanjaro, Africa's highest mountain, is located in the north east of the country. Tanzania is estimated to have a population of 63.5 million (2022). As a developing country located in the tropics, Tanzania faces a number of challenges with infectious diseases, including malaria, TB and HIV.

Tanzania is classified by the World Bank to be a lower-middle income country with a per capita income of 1,136 USD in 2020.

TB in Tanzania

TB is a major public health problem in Tanzania. The WHO estimates that 133,000 Tanzanians develop active TB disease each year (WHO estimates of TB burden, 2020). Of these, roughly 84,800 persons were diagnosed with active TB disease and given treatment, while 48,200 (36%) TB cases went undiagnosed. HIV positive TB incidence is still high in Tanzania with the WHO estimating that 28,000 PLHIV develop active TB disease in Tanzania each year (WHO estimates of TB burden, 2020).

IMPAACT4TB in Tanzania

In response to Tanzanian concerns regarding the feasibility of the 3HG regimen, IMPAACT4TB's project in Tanzania, implemented by KNCV, focused on laying the groundwork for the future introduction and implementation of the 3HP regimen within the country.

The Tanzanian government was concerned that the 3HP drugs were too costly and that there was not enough evidence to support the drugs effectiveness and safety. As such, KNCV initially focused on building confidence in the 3HP regimen within the Tanzanian Ministry of Health. KNCV was supported by evidence provided by an independent scientific committee and the reduction of the 3HP drug prices. The

IMPAACT4TB project has now been recognized as one of the key interventions that will alleviate the TB burden in Tanzania and has the full support of the Tanzanian Ministry of Health through the National TB and Leprosy Programme (NTLP) and National AIDS Control Programme (NACP).

Before implementation of 3HP treatments in Tanzania the new regimen had to be aligned with the existing guidelines and procedures on care and treatment. To achieve this, in 2021, the Government of Tanzania formed a national TB Expert Committee to explore the feasibility of the 3HP regimen. Members of the committee included representatives from the Tanzanian Ministry of Health, NACP, NTLP, Chief Pharmacist Office, Prime Minister's Office Regional Administration and Local Government. Other members included the Regional TB and Leprosy Coordinators, District TB HIV Officer, Tanzania Medicines and Medical Devices Authority (TMDA) and development and implementing partners such as World Health Organization (WHO), USAID – PEPFAR, AMREF, UMD, EGPAF and National Institute for Medical Research (NIMR).

Tanzania has now adapted their guidelines to include the 3HP regimen and is conducting implementation research to optimize the rollout of shorter TPT regimens including the 3HP regimen. National scale-up is expected to begin by mid-2023. The 3HP regimen is expected to be provided to all PLHIV and household contacts 15 years and older.

**FIVE
PERSPECTIVES
FROM
TANZANIA**

Perspective 1: “The future of the 3HP regimen is bright”

Dr. Beatrice Mutayoba is currently the Director of Preventive Services in the Tanzanian Ministry of Health and was previously the NTLP Programme Manager of Tanzania. As the NTLP Programme Manager, Dr. Mutayoba played a key role in the introduction of IMPAACT4TB’s Tanzania project. Dr. Mutayoba has done a commendable job facilitating the adoption and scaling up of the 3HP regimen in Tanzania, both in her past and current capacity.



Dr. Beatrice Mutayoba
- Director of
Preventive Services,
Ministry of Health,
United Republic of
Tanzania

According to Dr. Mutayoba, major achievements of the IMPAACT4TB project in Tanzania at the policy level include: the formation of a national TPT expert committee (NTEC); the development of a national TPT scale-up plan (2021-2024); the adoption of shorter TPT regimens with four stages - planning phase [Q4 2021-Q2 2022], pre- implementation phase [2022 Q3-Q4], implementation phase [2023-2024] and evaluation phase [Q1 2025]). Tanzania is currently in the

second stage of its implementation (pre- implementation).

“The future of the 3HP regimen is bright,” says Dr. Beatrice Mutayoba, “because of its efficacy, low pill burden, and low side effects compared to isoniazid, the implementation of the 3HP regimen is expected to improve adherence and, therefore, reduce TB incidence in the country and ultimately to reach the End TB target by 2030.”

Perspective 2: “TB prevention is better than cure”

Dr. Peter Neema is the National TB/HIV Coordinator at the NTLP in Tanzania. Dr. Neema notes that the several regulatory actions were required to introduce the 3HP regimen in Tanzania. These actions included forming a national TB Expert Committee tasked with advising the Tanzanian Ministry of Health on the best way to implement TPT and the use of the new 3HP regimen. A four-phased National TPT Scale-up Plan (2021-2024) also had to be developed. This plan calls for the existing stocks of isoniazid to be utilized before the introduction of the new TPT regimens to avoid wastage. The plan has been shared with stakeholders and is in the process of being approved by the Tanzanian Ministry of Health.



Dr. Peter Neema,
National TB/HIV
Coordinator, NTLP
Tanzania

According to Dr. Neema TB prevention is better than cure. The Tanzanian government has therefor recommended an operational research approach be utilized in the roll-out of the 3HP regimen among new key populations such as miners, people who use drugs, prisoners and household contacts of bacteriological confirmed pulmonary

TB patients over the age of five years (collectively, the New Key Populations). Currently, TPT is only provided to the population of PLHIV and household child contacts less than five years of old. One of the objectives of the research is to get a better estimate of the prevalence of TBI in the New Key Populations.

Perspective 3: “Almost every health care worker knows about the 3HP regimen”

Preliminary research work has been undertaken in the priority regions of Arusha and Mbeya. According to Dr. Isaya Jelly, who is the TB/HIV Programme Coordinator at the NACP, outputs of this research have enabled extraction of data that will facilitate identification of potential beneficiaries and matching 3HP drug requirements for PLHIV. With support from IMPAACT4TB, the NACP was able to sustain the participants through numerous workshops.



Dr. Isaya Jelly
TB/HIV Programme
Coordinator,
NACP Tanzania

“In a nutshell I could say that IMPAACT4TB has done the groundwork for the introduction and scale-up of the 3HP regimen. Currently, almost every health care worker knows about the 3HP

treatments have been mentioned in our guidelines and in most of the TPT and INH training sessions we have stated that, sooner or later, we will be introducing shorter regimens including the 3HP regimen.”

Perspective 4: “IMPAACT4TB has facilitated the understanding and adoption of the 3HP regimen in Tanzania through engagement of civil society organizations”

Civil society has been, and continues to be, actively involved in every phase of the tuberculosis and HIV response. This involvement is across the continuum of care, from advocacy to service delivery, from policy to program design, implementation to monitoring and evaluation. Under the IMPAACT4TB project, civil society has been expected to play the same role in all implementing countries (Tanzania, Zimbabwe, India, Brazil, Cambodia, Ethiopia, Ghana, Indonesia, Kenya, Malawi, Mozambique, South Africa).



Mr. Rodrick Mugishagwe,
TB Programme Officer,
EANNASO

In Tanzania, civil society has engaged in advocacy for shorter TPT using the 3HP regimen. The IMPAACT4TB project is working with several civil society organizations including the Network of Women Living with HIV and Eastern Africa National Networks of AIDS and Health Service Organizations (EANNASO) to increase acceptance of the 3HP regimen and facilitate its rollout. The role of these civil society groups is crucial due to the very low level of understanding and support for the new approach to treating TBI across different segments of Tanzanian society. This collaboration has enabled the project to register several achievements in this front.

Mr. Rodrick Mugishagwe is a TB Programme Officer at EANNASO. He has been actively involved with the IMPAACT4TB project for several years now. According to Mr. Mugishagwe, before the civil society organizations (CSOs) were engaged, the level of knowledge about the potential benefits of the IMPAACT4TB project for Tanzania was very low. This is one of the reasons the IMPAACT4TB project implementation was delayed. Mr. Mugishagwe also highlighted several achievements by CSOs in facilitating the IMPAACT4TB project implementation. They include development of a national advocacy agenda, mobilization of CSOs working in TB, mainstreaming the discussion about the use of the 3HP regimen for TPT and advocating for reduction of the 3HP drug

prices through the Treatment Action Group. Mr. Mugishagwe’s biggest concern is that the project is coming to an end. This concern is shared by other CSOs that support the implementation of the IMPAACT4TB project in Tanzania. However, Mr. Mugishagwe is optimistic that the achievements will be sustained and KNCV will work with stakeholders to ensure a successful rollout of the 3HP regimen in Tanzania: by extending the implementation period of the current project or conception of a new project. Indeed, KNCV has secured funding from the Global Fund against AIDS, Tuberculosis and Malaria to provide short-term technical assistance to Tanzania to expand TPT including shorter regimens such as the 3HP regimen. Mr. Mugishagwe wishes for more funds to be secured for advocacy campaigns that will enhance awareness and support for the 3HP regimen and ultimately create demand for the drugs in the target communities.

“I am happy that the IMPAACT4TB project has facilitated understanding and adoption of the 3HP regimen in Tanzania through engagement of CSOs in advocacy. This is a credit to IMPAACT4TB as the advocacy element in interventions is usually overlooked and underfunded. However, to achieve sustainable success, CSOs dealing with HIV/AIDS need to join hands to support the 3HP regimen rollout and ultimately improve the well-being of the target population.”

**“I am happy
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IMPAACT4TB
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Tanzania”**

**Mr. Rodrick
Mugishagwe**

Perspective 5: “The current treatment is highly challenging to PLHIV and children less than five years of old”



Mr. Marko Jumanne
Mkumbo,
Head of Procurement
and Supply Chain
Management, NTLP
Tanzania

Mr. Marko Jumanne Mkumbo, head of procurement and supply chain management at the NTLP, echoes the positive development in the drugs front. Mr. Mkumbo has been actively involved in the introduction of the 3HP regimen in Tanzania. He notes that IPT, currently used in Tanzania, is highly challenging for PLHIV and children less than five years old. This is because IPT involves a lot of drugs, takes six months to complete and has been reported to have adverse reactions in some patients. Mr. Mkumbo commends the Global Fund for agreeing to re-program around US\$300,000, originally allocated to procure isoniazid, for the procurement of 3HP drugs for implementation research.



IMPAACT4TB Success stories from 4 countries

