



TB CAB 10th anniversary

Chapter 3

Fade in Anonymous Key Informant Voice 1020:

Honestly, I don't think things would have changed much on pediatrics had there not been a really strong push from the TB CAB. And particularly because the World Health Organization was very aggressive with the recommendations for use of new drugs, like with bedaquiline and delamanid in pediatric patients, and that was definitely a result of TB CAB, right? Like, you can absolutely see that link.

Mark Harrington:

That was a product developer interviewed for this TB CAB 10-year-anniversary report, crediting the CAB with changing the landscape surrounding a new drug called bedaquiline. I agree with them – and so do many others. In fact, looking back over the TB CAB's first decade, the fight to make bedaquiline the central part of a new standard of care for patients with drug-resistant TB was perhaps the TB CAB's single greatest achievement.

Bactrin Killingo:

Of course, it wasn't actually a *single* achievement. It was the result of years of groundwork that we've been laying since our inception. But what did that groundwork look like, how did we lay it, and what challenges did we face along the way? And why do we care so much about bedaquiline, anyway? That's the story of our third and final episode.

Bactrin Killingo:

Remember back in Episode 1, when I talked about how people coming to TB activism in the early 2000s were angry? We had a very good reason to be. This disease is curable, but it was seriously neglected -- resulting in unnecessary sickness and death, and the emergence of even tougher-to-treat drug-resistant strains of the disease. At first the global health apparatus willfully ignored the threat posed by drug-resistant TB, allowing it to keep spreading and killing people. Even before the COVID-19 pandemic exacerbated TB diagnosis and treatment gaps, only one-third of the 500,000 people estimated to have drug-resistant TB each year received treatment.

Mark Harrington:

The political indifference of most countries towards people with drug-resistant TB didn't help. Nor did it help that treating drug-resistant TB required many, many months of combination therapy using toxic drugs that interact with commonly used drugs for other conditions such as HIV. People with TB who ran out of money, who lived too far from a clinic, or whose drugs' supply was interrupted, were at higher risk for developing drug-resistant TB, making it even harder to cure.

Bactrin Killingo:

Once drug resistance developed or was transmitted, the only available treatment was a cocktail of second or third line drugs, most of which were developed for other infections and used off-label for TB. This treatment was less effective and even harder to tolerate. People with multidrug-resistance, or MDR-TB, had to take drugs with very serious side effects every day for 18-24 months, including 6-9 months of an antibiotic administered by IV infusion or painful injections known to cause disastrous side effects. Many TB CAB members experienced this treatment. Here are Paran Winarni and Oxana Rucsineanu, MDR-TB survivors that joined the TB CAB in 2020.

Paran Winarni:

Hi, everyone. My name is Paran Sarimita Winarni. Everyone used to call me Paran. And I'm from Indonesia. I am TB survivor from for twice and now I'm a member of TB CAB

and also a member of PETA. PETA is a patient organization based in Jakarta in Indonesia.

My experience for taking the injectable drugs for my MDR-TB treatment is I'm diagnosed with DR-TB in 2014... Can you imagine how many injections, you have to use it for about like seven months, it has to be like every Monday to Friday for the injection.

Oxana Rucsineanu:

Hi, my name is Oxana Rucsineanu. I am a TB survivor based in Bălți, which is situated in the Republic of Moldova. In Eastern Europe, Central Asia.

When I started taking the injectables, I had this feeling of losing the reality... having injectables is absolutely a negative thing, not only related to the physical side effects, but as well to hearing loss.

Bactrin Killingo:

And here is Ezio Tavora from Brazil, whom you may remember from Episode 1.

Ezio Tavora:

I went through injectables, and injectables are literally torture. ... because it's highly chemical, it's the medication, makes you have nausea, it is complicated, it affects your metabolism. ...And one of the aspects of this cruelty, especially for those living with AIDS... It's extremely painful and extremely toxic. And it's intramuscular. People with AIDS normally have muscular loss. So you imagine that people who lose weight they are malnourished, they have less muscles, and they have to take extremely painful injectables twice a day, twice shots in one day or one shot etc. It's a torture. There's no other way to say that.

Mark Harrington:

The founding members of the TB CAB knew how high the stakes were -- successfully treating people with drug-resistant TB was an immense challenge. But getting patients through the long and miserable regimen was the only way to cure them, and to prevent the further spread of drug-resistant TB.

Bactrin Killingo:

In short, we needed research and better, more effective drugs to fight drug-resistant TB. And by 2011, when the TB CAB was formed, after a decades long gap there was finally a promising candidate in the drug development pipeline: a drug called bedaquiline, sponsored by Tibotec, which was acquired by a Johnson & Johnson subsidiary called Janssen. It was the first new TB drug from a new class in 40 years.

Mark Harrington:

At the time, the TB CAB was formed, bedaquiline was in phase 2 – it was being studied in a small number of people to determine safety, and whether and how quickly study participants' TB cultures converted from positive to negative – the question of whether bedaquiline actually cured people or guaranteed a relapse-free TB cure would be left to a larger Phase 3 trial that had yet to begin.

Given TAG's experience with HIV drug development and the FDA's accelerated approval pathway, we knew this was a critical moment to engage. The accelerated approval pathway is for medicines that address unmet medical needs for serious and life-threatening diseases and infections. Based on this need, the pathway allows new drugs to be approved before phase 3 studies are complete. So, the TB CAB met with Tibotec, Johnson & Johnson, during our very first meeting in 2011. They presented findings from their phase 2 studies, and their plans for phase 3, pediatric investigations, registration, and access.

But what they told us raised major concerns: we had such high hopes for bedaquiline and what it might be able to do for people with drug-resistant TB, but there were no plans to study bedaquiline in combination with other investigational new TB drugs. Early recommendations from the TB CAB to study these drugs interactions eventually

became clinical trials with published data and transformed the standard of care for drug-resistant TB.

In 2012, the US Food and Drug Administration provided accelerated approval for bedaquiline, based on promising Phase 2 data, on the condition that the final Phase 3 results confirm the preliminary findings. The TB CAB supported the FDA approval. In fact, we called for this decision in a letter to the FDA, as well as one to the European Medicines Agency, or the EMA – urging them both to approve bedaquiline using an accelerated approval pathway.

There were still many unknowns – we still didn't know how bedaquiline might interact with other new and repurposed TB medications, how it might possibly be used to shorten treatment and/or replace toxic second-line medications, or how to dose it or whether it was safe to use in children.

Bactrin Killingo:

We still knew enough to know bedaquiline had the potential to be a game changer: but the vast majority of patients who needed it didn't benefit at first. Health authorities were reluctant to broadly roll out something new and unknown, especially given the remaining data gaps. And the World Health Organization was super cautious about bedaquiline too – its official guidelines only recommended the drug for use when all other options had been exhausted.

But the TB CAB knew bedaquiline had too much promise to be thought of as a last resort, and in fact, there were more high-quality data for bedaquiline against MDR-TB than there were for many of the second-line medicines that made up the existing standard of care regimen we sought to displace. It deserved to be considered a critical new tool for drug-resistant TB. So to overcome this early hesitancy, the TB CAB used a multi-pronged approach. We pushed for additional research to plug holes in the data and to provide the evidence necessary to expand the use of bedaquiline and help more patients.

Take, for example, the TB CAB's advocacy surrounding the STREAM Trial.

Remember how Mark told you that bedaquiline was granted accelerated approval in 2012, on the condition that its efficacy and safety were confirmed in a Phase 3 trial? Well, Janssen's original plan was to test bedaquiline by simply adding it to the existing 18–24-month regimen for MDR-TB. But from the TB CAB's perspective, that wasn't good enough – the whole reason we were so excited about bedaquiline was that it might be able to be used as an *alternative* to toxic injectables, not in addition to them. We wanted a study design that could confirm how bedaquiline might be used to shorten regimens, or replace the worst drugs.

Those questions, thanks in large part to advocacy from the TB CAB, would eventually be incorporated into the STREAM Trial – a large phase 3 trial sponsored by an NGO called The International Union Against Tuberculosis and Lung Disease with funding support from USAID.

The Union designed the STREAM Trial to evaluate an emerging 9-to-12-month regimen, called the Bangladesh regimen, against the long-standing 18–24-month standard of care treatment regimen for MDR-TB. The STREAM Trial was a big deal – it was the largest randomized, controlled clinical trial ever done for MDR-TB. It initially enrolled over 400 participants from sites in 4 different countries, so the data it produced could become the basis for treatment guidelines in TB programs across the world.

So, when the STREAM investigators agreed to add a second stage to the trial to include bedaquiline – which the FDA would accept in lieu of phase 3 data from Janssen, the TB CAB was eager to see the study design and whether it would determine if bedaquiline could serve as a new cornerstone of MDR-TB treatment.

And sure enough, Stage 2 of the STREAM trial was designed to test bedaquiline as part of six and nine month regimens, and in the latter, as a replacement for the injectable agents. Stage 2 of the STREAM trial would deliver more relevant answers than Janssen's original plan would have.

Mark Harrington:

But, there was a big problem: at one point, between Stages 1 and 2 of the STREAM Trial, the TB CAB found out that the study sponsor was planning to discontinue enrollment to the longer control arm before knowing the outcome of Stage 1.

This would be problematic, because it meant that in Stage 2 of the trial, the bedaquiline-containing regimens would be measured against a shorter regimen, which had not yet been proven to be better than the longer regimen.

However excited we might have been by the prospect of shorter, bedaquiline-based regimens for MDR-TB, taking scientific shortcuts to get them was unacceptable – people living with TB deserve treatments that are evidence-based. And as voices representing the interests of communities affected by TB, the TB CAB was obliged to hold stakeholders accountable and to make sure that treatment decisions affecting people's lives would be based on strong scientific evidence.

So the TB CAB raised our concerns first with Janssen, Tibotec and the study sponsor, and then with the study funder and regulatory authorities.

Here is an excerpt from a letter the TB CAB sent to the FDA and the EMA:

VOICE ACTOR:

We fear the EMA and FDA's laxity in allowing an experimental regimen to serve as a control arm for a registration trial of a new drug jeopardizes good science and ethical research, and sets a dangerous precedent for future TB trials.

Mark Harrington:

After the TB CAB's pushback, the sponsor agreed to continue enrolling participants in the control arm from Stage 1 of the study until they had the data proving that the shorter regimen was non-inferior. Only then would they discontinue enrollment in the longer treatment regimen and use the now validated shorter regimen as the control against which to compare the bedaquiline-containing shorter regimens, with and without injectables.

In the end, the Global TB CAB's advocacy really paid off – the STREAM Trial design was vastly improved, in a way that provided much clearer answers to key questions about bedaquiline, and how it could be used to improve treatment for drug-resistant TB. And the CAB and other stakeholders all learned valuable lessons from the experience of engaging around these issues – setting important precedents for community engagement with scientists, regulators, funders, and product developers moving forward. Ezio Tavora, a founding TB CAB member who is also the Community Engagement Coordinator for the STREAM Trial, will explain:

Ezio Tavora:

So having community engagement as one of the components of the Stream Trial, and that was very important, so that we had this in the largest clinical trial, we had the opportunity to build capacities and to interact in a regular way, in a permanent way with the communities and bridging the communication and the feedback from the communities and the information into the study. So that helped the organization of the study, that helped it in many aspects, and it brought a new, a new understanding of the importance of studies. Because I think these big trials give an opportunity for people to understand the importance of science in their lives, because this is sometimes difficult for communities to understand why science is important. Science directly interferes in their daily life. As I am saying, you depend on science to have better treatments, you have better drugs or have better diagnostics, have better vaccines.

Bactrin Killingo

Stage 2 of the STREAM Trial focused on shorter bedaquiline-containing regimens had begun enrolling patients in 2015 – and getting final results can be a long process. With the Phase 3 trial ongoing, bedaquiline registration was still under preparation and review with national regulatory authorities in many countries with high burdens of drug-resistant TB. Remember, the 18–24-month treatment being used at the time was very toxic, and only had around a 50% success rate – which meant there were thousands of patients who stood to benefit from bedaquiline right away, even if only used according to its limited indication as a last resort after other options had been exhausted.

But people living with MDR-TB could only access bedaquiline if their country programs were willing to administer it, or in many cases, if they had a physician savvy enough to obtain access under a pre-approval, named-patient program run by J&J. So, the Global TB CAB set out to convince national regulatory authorities and TB programs of the importance of access to bedaquiline.

We wrote letters to the South African Medicines Control Council (MCC), urging the provision of pre-approval access to bedaquiline under Section 21 of South Africa's Medicines Act. The MCC's response kicked off the establishment of South Africa's Bedaquiline Clinical Access Program – what they call the B-CAP program.

And we wrote letters to national regulatory and health authorities in the Philippines, Indonesia, Peru, and Papua New Guinea, just to name a few, to push for local registration, the incorporation of bedaquiline into national guidelines and programs, and for pre-approval access in the interim. We placed a special focus on India, writing a letter to Prime Minister Narendra Modi in 2017, urging him to take action on bedaquiline to save the life of a young girl in Bihar province dying of extensively drug-resistant TB. We repeated the tactics we discussed in Episode 1, once again publicly challenging health authorities in India like I did in Paris back in 2013. TB CAB member Ketho Angami seized the microphone at one session in Liverpool in 2016.

AUDIO CLIP FROM UNION CONFERENCE IN LIVERPOOL IN 2016:

This message goes out to the Indian Government. So, we have an urgent message for the Indian government, which we want you to take back to the Prime Minister, Mr. Narendra Modi; our honorable Minister, Mr. J.P. Nanda; the Deputy Director General of the Central TB Division in India, Mr. Kaparde: To say that, earlier this month, the World Health Organization has released its new annual report on TB, which found that 29% of all TB related deaths in the world, occur in India. In fact, 1,400 Indians die each day of a preventable and curable disease. We demand that the Indian government fix the following nine broken promises as laid down in this. I'll read out the 9 points.

Number 1, to roll out daily FDCs (fixed dose combinations) for PLHIV.

Number 2, to roll out daily FDCs for children.

Number 3, to scale up GeneXpert.

Number 4, to scale up DST.

Number 5, to roll out bedaquiline.

Six, IPT (isoniazid preventive therapy) for PLHIV.

Seven, IPT for children under five years of age.

Number 8, rifabutin for treatment of TB coinfection with HIV.

And the last point, number 9, to stop using the category II (injectables) for re-treatment courses.

In conclusion, the message is that mere political will without political action is not enough.

Bactrin Killingo

South Africa was an early adopter of bedaquiline, with initial use through a clinical access program starting in 2012 and regulatory approval in 2015. The clinical access program was designed to collect data to inform local bedaquiline policy and adoption. Here's emeritus TB CAB member Marcus Low:

Marcus Low:

My name is Marcus Low, I'm the editor of a South African online magazine called Spotlight, a Public Health magazine. I was previously the head of policy at the Treatment Action Campaign here in South Africa, and I was a member of the Global TB CAB for a number of years

So, in South Africa there emerged a movement around bedaquiline. It was driven by the Treatment Action Campaign, Doctors Without Borders. Others later became involved ... And behind this was our collaboration with Treatment Action Group and the Global TB CAB... There was a local movement, but with this international support.... And that was quite a process. It took a lot of convincing, a lot of letter writing, meetings, etc. And eventually the Medicines Control Council, which is our equivalent of the Food and Drug Administration... Eventually, they allowed compassionate access. So they allowed some people to get this drug under very specific conditions and with close monitoring

and that program, that compassionate access program, actually became an important source of evidence of how well the drug works, how safe it is in actual usage.

I think one of the lessons from this is that there was years of activism... Multiple years of meetings and getting different people on board. So that by the time there was compassionate access, and then a wider access program, a lot of people were already convinced that this was an important drug, it was solving an important problem.

Once that initial reluctance with the regulatory authority was out of the way the decision making came quite quickly and government was quite quick as you say, we were first the first country to start using bedaquiline at any real scale. And then there was a positive feedback loop where it was clear people were doing well and clinicians had good experiences with the drug and they wanted to use it more, so you know, it kind of became self sustaining.

Mark Harrington:

The new data coming out of South Africa about the broader use of bedaquiline was astonishing – the drug appeared to be significantly reducing death among patients with MDR-TB. In 2018, the South African government became the first in the world to make bedaquiline part of the standard recommended regimen for treatment of rifampicin-resistant tuberculosis.

The Global TB CAB welcomed South Africa's decision. And with stronger evidence than ever for bedaquiline's effectiveness, we felt that we had no choice: it was time for us to demand that the World Health Organization do the right thing for TB patients, and embrace bedaquiline in place of the ineffective, toxic, often deadly injectables.

We wrote open letters: we told them that the lack of movement on bedaquiline sparked "alarm and frustration," and we told them that it was our obligation to document errors and concerns with the WHO's interpretation of the existing data. We understood the trepidation while evidence was still evolving, but this situation was exceptional – the injectables, part of an old standard of care with an even weaker evidence base were causing harm and permanent disability – and the data we already had showed

bedaquiline was safe and was saving lives. The WHO partially acknowledged this in its 2018 guidelines, by upgrading bedaquiline to Group A for use as a core component of longer regimens, while downgrading or recommending against the use of most injectables. This established an all-oral bedaquiline-based regimen as the new standard of care for rifampicin resistant tuberculosis. But still with the stipulation the treatment last for 18-20 months. In the meantime, many programs had already transitioned to using a 9-to-12-month regimen, the so-called Bangladesh regimen, recommended by the WHO in 2016.

The TB CAB felt there was an urgent need to act on this policy incoherence. Normally the TB CAB would advocate for waiting for evidence from randomized controlled clinical trials which is the gold standard, especially for changing a standard of care. But this situation was exceptional – the results of Stage 2 of the STREAM Trial were still four years away, and the injectables were still causing harm and permanent disability. In the meantime, bedaquiline was demonstrating a mortality benefit in South Africa when used in place of the injectable agents.

It was almost as though the WHO was telling people with drug resistant TB “the good news is that there is a shorter 9-12-month regimen, the bad news is that you still might go deaf or lose your kidneys”. But with bedaquiline instead of the injectables we get rid of those side effects and give people an all-oral cure for all forms of drug resistant tuberculosis.

As a result, in 2019, the TB CAB declared a full-on “crisis of confidence” in the World Health Organization’s ability to issue defensible guidelines for the treatment of drug-resistant TB. After a massive struggle, in which the example from South Africa really helped to sway the opinion leaders from around the world.

At the end of that year, the WHO came around, and issued new treatment guidelines: now, bedaquiline was officially recommended as the central building block of all regimens for drug-resistant TB, enabling all-oral regimens for everybody, with no more painful injections, no more hearing loss, no more kidney failure, and no more policy incoherence within the World Health Organization.

For communities affected by drug-resistant TB, it was almost as if the nature of the disease itself transformed overnight.

Bactrin Killingo:

Of course, not everyone *did* have access to bedaquiline – too many patients were still stuck with an obsolete and highly toxic cocktail. J&J initially introduced bedaquiline using a tiered pricing scheme, charging between US\$900 and \$30,000 per six-month course of bedaquiline. Of course, we scoffed at both these prices and the scheme itself, especially considering that even in high income countries' TB programs are publicly funded and under-resourced. J&J did soon establish a bedaquiline donation program that made the drug free to Global Fund eligible countries - but however nice donations may be, we knew they weren't sustainable: so, the TB CAB pushed for an equitable pricing structure that charged one flat fee, universally available to all.

Just as the donation program was nearing its expected end, the TB CAB began ramping up its advocacy around the price of bedaquiline, following the lead of the MSF Access Campaign, and leveraging the work of academics to estimate J&J's costs of production and to quantify the public's investment in the drug's development to counter the narrative that the high prices J&J was charging were justified. Remember – J&J's Phase 3 clinical trial, required by the FDA as a condition of bedaquiline's approval – piggybacked onto a preexisting trial funded by the US government.

To sum up, we *knew* that bedaquiline worked. We *knew* it helped patients. We *finally* had broader WHO guidance. But by 2018, it was estimated that only 10% of people in need and eligible under WHO guidelines were actually receiving the drug. To get bedaquiline into the hands of more people with drug-resistant TB would require the cooperation of WHO, National TB Programs, funders of TB programs, and importantly, J&J. And whose job is it to hold stakeholders accountable, and push them to act in the interests of communities affected by TB?

Mark Harrington:

That's right, you got it – the TB CAB. In our first seven years leading up to 2018, bedaquiline had been absolutely central to the TB CAB's work. We'd written letters to the company, to funders, and to governments, urging them to research the drug's optimal dose and safety in kids, whether and how it might be safely combined with other drugs, and how it could be used to shorten treatment and potentially replace toxic medicines. We'd done critical advocacy and revolutionized guidelines for TB both in South Africa and globally. But after all this work and this progress, we hit a major wall: bedaquiline uptake remained too slow, the donation program was poised to end, the price was still too high. The reduced price negotiated by South Africa was US\$400 per six-month course of bedaquiline. That was still way too high for broader uptake globally. Even with this price reduction the cost of bedaquiline-containing regimens ranged from US\$800 to \$12,000 depending on their length and the companion medicines. The drug costs were primarily driven by the high price of bedaquiline. So, the TB CAB drew upon what worked in HIV activism, something we call the "escalation pathway," which you've heard about in previous episodes. And at the 2018 Union TB Conference in the Hague, in the Netherlands, we decided to escalate our concerns with Johnson & Johnson.

TB CAB members and allies of the MSF Access Campaign planned things out in secret. And when the opening ceremony of the conference came around, Wim Vandeveldde blew a whistle to summon activists in the audience to storm the stage and publicly and loudly demand that J&J lower the price of bedaquiline. Here's Wim again:

Wim Vandeveldde:

The reason why I always bring a whistle to conferences is to draw the attention of the room. And to signal that we are starting a march or that we are going to storm the stage. It's relatively peaceful, I would say. But it definitely draws the attention to the action. And I've been carrying a whistle in my bag for many years. I've always had it in my bag, and I plan to bring it with me to the next ones.

Planning a direct action is usually a mixture of anger and frustration about a particular unjust situation where we want to bring the attention to this terrible situation. But it's also coupled with fun when we try to come up with the most impactful way of getting the attention of the target and of the audience to our specific demands. So, lots of creative

ideas fly around the room. And at the end of the meeting, we're usually all buzzed. And we can't wait to start the action. And then when the action starts, of course there's, there's nervousness. Are we going to be stopped? Is this going to have an impact on the audience? But it's usually a mixture of anger and fun.

Bactrin Killingo:

The demonstration in the Hague didn't lead to an immediate price reduction, but it made the case for one before an international audience. Bedaquiline was being sold for US\$67 a month – four times the US\$17 per month that academics estimated the company could sell bedaquiline for while still making a reasonable profit. And J&J's high price didn't consider the substantial public and philanthropic investments that went into the development of bedaquiline.

Light chanting in the background – “Drop the price!” in different languages.

This initial action in the Hague sparked protests at J&J headquarters across the world, culminating in a second demonstration, this time at the 2019 Union TB Conference in Hyderabad.

Just after the opening plenary, TB CAB members joined Indian and other civil society and community groups in storming the stage, seizing the microphone and holding posters calling for government accountability for ensuring access to bedaquiline and for the Indian government specifically to issue compulsory licenses as a means to expedite the availability of more affordable generic versions of the drug in the absence of further price reductions from J&J.

SOUNDBITES FROM THE UNION CONFERENCE IN HYDERABAD IN 2019:

Activists chanting – “azadi!” and clapping.

Azadi means freedom. And all the slogans that were spoken here talk about different types of freedom that we want for people with TB – be it freedom from painful injections, freedom from longer regimens, freedom from TB itself, that is what we want -- freedom from high prices.

We condemn J&J's high prices of bedaquiline.

We condemn your pattern extension that you have filled and gotten in 17 countries.

We demand that you lower the price to a dollar a day.

Mark Harrington:

Today, tens of thousands of people with drug-resistant TB are benefitting from access to shorter, safer, and more effective treatments, thanks in large part to the TB CAB's activist efforts to make bedaquiline accessible around the world. Today, the price of bedaquiline in most low- and middle-income countries ranges from US\$272 to \$340 for a six-month course. These prices are still nearly twice as high as the \$1 a day demanded by activists, but they have brought the cost of shorter bedaquiline-containing regimens down to US\$560 per treatment course. By the end of 2020, 109 countries reported to the WHO that they are using bedaquiline as part of treatment for drug-resistant TB. 90 countries reported using all-oral longer regimens (up from 86 in 2019) and 65 reported using shorter regimens for the treatment of MDR-TB.

The Global TB CAB had an eventful first ten years, but our work is far from done – and our current and former members are more committed than ever to the fight to end TB for good.

Wim Vandeveldde:

I believe that the next 10 years for the TB CAB will be about improving global access to the new shorter regimens, to the new diagnostic tools like molecular rapid tests that have come along in the past 10 years. Though, we've made huge progress, but access to these new tools is very unequal. So, there's a lot of work still to be done there

Oxana Rucsineanu:

We need to be using very direct messages, and do not leave space for interpretation... we need to be strong and we need to if we want things to change, we need a lot of enthusiasm, as they say, and a lot of courage. Not to be discouraged by people saying but it is not possible to do.

Marcus Low:

I think we should be realistic about what can be done, given that the problem is deeply political. So, to change how a government invests in research, especially in a country, like South Africa, or India, or Brazil, there needs to be domestic pressure. And that can't just be from a few activists. It should ideally be from trade unions, from political parties...

Paran Winarni:

As a TB survivor and TB advocate and activist I feel that there is something missing... it is mental health issues, stigma and discrimination and support issues that really need for the patient and how TB survivors can get back work for their livelihood.

Ezio Tavora:

I think I would just finalize saying that we are very positive about the future... the capacities are there, we have to improve the ground level, the grassroots capacities... So the global TB CAB can act, not only in this global level, and but also in the country, in the grassroots level. So, I am very happy to be participating in this global effort. We are very thankful for this huge work group.

Mark Harrington:

And we're grateful to everyone who supported the TB CAB's work along the way, and to everyone who listened to this podcast. Thank you! I'm Mark Harrington.

Bactrin Killingo:

And I'm Bactrin Killingo. Thank you, and here's to the Global TB CAB's next decade to come.

VOICE ACTOR:

This podcast is produced by Treatment Action Group (TAG), with the support of Laia Ruiz Mingote and Alex Orozco.

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