

Best Practices and Lessons Learned in Implementing TB Innovative Approaches in West and Central African Countries

Proceedings from the workshop organized by the Global Fund, in collaboration with TDR and
WARN/CARN TB - 16-17th December 2021



Benin Royal Hotel (Cotonou, Benin) & virtual access via Zoom

SUMMARY

This workshop was organized by the Global Fund as a continuation of two workshops conducted in 2018 and 2019, to share lessons learned and best practices in TB case finding and treatment in West and Central African countries.

Given the very good collaboration between the Global Fund, WHO/TRD and the WARN/CARN-TB Secretariat, the opportunity provided by the traditional annual meeting of the West and Central African regional networks for TB control was an excellent option for organizing this third Global Fund workshop. The purpose of the two-day workshop was to allow participants from Central and West African countries to share and discuss best practices and lessons learned in systematic TB screening, active case finding of missing people with TB, and TB prevention, with a special focus on the new approaches implemented by various countries.

The workshop agenda included a landscape analysis based on responses provided by the network of 27 countries¹ to the pre-meeting questionnaire that had been sent out prior to the meeting, some technical updates on latest international guidelines, tools and opportunities for systematic TB screening and preventive treatment, numerous implementation experiences presented by countries and time for discussion and exchanges.

WHO GTB, Stop TB Partnership and USAID presented the recommendations and available tools for systematic TB screening, TB management in children and adolescents, innovations in screening and diagnostic tools and availability for procurement (ultraportable digital radio + DAC, Truenat, etc.), TB contacts investigations, simultaneous screening for TB and SARS-CoV-2 and its implementation in COVID 19 and high TB burden countries.

Innovative experiences in systematic TB screening and active case finding were shared by Burkina Faso, Ghana, Benin, Senegal, Cameroon, Nigeria and Guinea.

The Union presented the results of TB contact tracing in eight French-speaking countries (the CETA project), DRC gave a presentation on their experience with improving the process of identifying pediatric TB cases and providing access to preventive treatment for children contacts of people with TB, and Burundi shared their experience with managing TB and MDR-TB contacts.

Nigeria, Guinea, Niger, Côte d'Ivoire presented integrated approaches in the context of COVID-19 including experiences in bi-directional TB and COVID-19 screening and integrated community-based TB/HIV care for IDUs.

One session of the workshop was then dedicated to country experiences and available tools on how to overcome barriers to diagnosis, prevention and treatment: Stop TB Partnership, le Club des Amis Damien in RDC, DRAF TB and RAME shared their rewarding learning experiences related to community, rights and gender (CRG).

Participants really appreciated the opportunity to learn from each other. National program managers and other participants actively discussed and shared ideas on how to address identified gaps and challenges with limited resources and/or adopt innovations. Indeed, using the tools available and the many positive experiences presented, participants emphasized that more effective ways of doing TB

¹ WARN-TB: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo CARN-TB: Angola, Burundi, Cameroon, Chad, Congo, Equatorial Guinea, Gabon, CAR, DRC, Rwanda, Sao Tome and Principe

screening, active case finding, and preventive treatment of TB exist and can be implemented, even when resources are limited.

This report presents a summary of the presentations and discussions and provides links to available guidelines, tools and opportunities.

Hopefully this document will be useful to and appreciated by national TB programs, civil society organizations and partners.

Photo credits : WARN and CARN-TB Secretary

ACKNOWLEDGMENTS

We would like to thank all participating countries for their important contributions, their willingness to share valuable knowledge, and their meaningful participation in the Cotonou workshop.

We also express our deep appreciation to WARN-TB and CARN-TB Secretariat, the World Health Organization (WHO), the Stop TB Partnership, the Tropical Disease Research and Training Program (TDR), The Union, USAID, Action Damien, the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Expertise France, DRAF TB, le Club des amis Damien, Médecins du Monde and the other partners who collaborate on a daily basis with the countries, and with the Global Fund, to combat TB in West and Central Africa.

We owe a special debt of gratitude to the National TB Control Program (NTP) of Benin for its support in organizing and hosting the workshop.

We would also like to extend our warmest thanks to our Global Fund colleagues who collaborated so well on this work.

And of course, we thank the civil society organizations and NGOs that participated in the workshop and shared their knowledge and experience in supporting innovative TB control strategies in various countries of the region.

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On behalf of the report-writing team

May 2022

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LIST OF ABBREVIATIONS

ACF	Active case finding
WCA	West and Central Africa
CHW	Community health worker
C19RM	Global Fund COVID-19 Response Mechanism
CAD	Computer-Aided Detection
DTC	Diagnostic and treatment center
CETA	Contributing to the Elimination of Tuberculosis in Africa
UHC	University Hospital Center
CRG	Community, rights and gender
CXR	Chest x-ray
DRAF TB	Dynamique de la Réponse d'Afrique Francophone sur la TB (Dynamics of the Francophone African TB Response)
DST	Drug sensitivity testing
COE	Challenging operating environments
FDC	Fixed-dose combination
GF	The Global Fund
FOSA	Health Facility (FOSA)
GDF	Global Drug Facility
GTB	Global TB Program
IDR	Tuberculin intradermal reaction
IGRA	Interferon-Gamma Release Assays
INH	Isoniazid
NFM3	New Funding Model 3
IOM	International Organization for Migration
WHO	World Health Organization
NGO	Nongovernmental organization
CSO	Civil society organization
PCR	Polymerase chain reaction
IDP	Internally-displaced persons
NTP	National Tuberculosis Program
PQE	Program Quality Efficiency and Improvement
NSP	National strategic plan
PUD	Person who uses drugs
PLHIV	People living with HIV
AEMN	Access to Essential Medicines Network
CAR	Central African Republic

DRC	Democratic Republic of Congo
SOP	Standard Operating Procedures
TB	Tuberculosis
MDR-TB	Multi-drug-resistant tuberculosis
TB-RR	Rifampicin-resistant tuberculosis
TBCI	Investigation of TB contact cases
DOT	Directly observed treatment
TDR	Tropical Disease Research and Training Program
TBP+	Bacteriologically confirmed pulmonary tuberculosis
TPT	Preventive treatment of TB
DU	Drug user
IDU	Injectable drug user
UNHLM	UN High-Level Meeting on TB key targets
USAID	United States Agency for International Development
USD	US dollar
HIV	Human immunodeficiency virus
WARN/CARN -TB	Consortium of West and Central African Regional TB Networks

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BACKGROUND

Approximately 10 million people fall ill with TB each year, yet only about six million cases were reported in 2020, leaving nearly half of the estimated TB cases undetected. The COVID-19 pandemic has reversed years of progress in providing essential TB services and reducing the global burden of the disease. Problems with providing and accessing essential TB services have resulted in many people with TB going undiagnosed worldwide. Reduced access to TB diagnosis and treatment has resulted in an 18 percent decline in the number of reported TB cases, an increase in TB deaths for the first time in more than a decade, and a 21 percent reduction in TB preventive treatment. According to the WHO, 1.3 million HIV-negative people have died from TB; while 214,000 HIV-positive people have lost their lives to the disease. TB treatment coverage for Africa was 56% (50-62) in 2020, with more than one million missing people with TB.

In order to discuss these challenges and solutions, the 6th annual meeting of WARN/CARN-TB provided the setting for the 3rd Global Fund workshop on sharing best practices and lessons learned in implementing innovative approaches to fight TB. The meeting, which took place in person in Cotonou, Benin, and virtually via ZOOM, brought together NTP coordinators from West and Central African countries and TB partners in the region.

Two workshops were organized by the Global Fund in 2018 and 2019 to share lessons learned and best practices in TB case finding and treatment in West and Central African countries. The first workshop focused on how to improve case finding and treatment outcomes, while the second targeted community engagement and responses to TB and childhood TB.

The Global Fund, through the "Finding the Missing People with TB" strategic initiative, supports 25 countries, including 11 in the African region and five in the West and Central Africa (WCA) region (as part of the "Strategic Engagement in WCA" initiative). These initiatives contribute to generating local evidence and best practices in innovative approaches to TB detection and treatment, and to disseminating lessons learned and a catalytic effect for other countries, among other things.

It is from that perspective that it was deemed important to organize this workshop, which builds on the two previous events, and capitalizes on the presence in Benin of all the NTP leads from the 27 WCA countries, as part of the traditional annual meeting of WARN/CARN-TB.

WORKSHOP OBJECTIVES

The overall purpose of this workshop is to allow participants from Central and West African countries to share and discuss best practices and lessons learned related to systematic TB screening, active case finding of missing people with TB, and TB prevention, with a special focus on new approaches implemented by the different countries.

The specific objectives are:

- Share best practices and innovative approaches to improving TB reporting, prevention and care, including systematic TB screening for high-risk populations, quality improvement approaches (e.g., PQE), and community-based responses;
- Foster better collaboration among, support for and coordination of traditional and non-traditional actors at the national and regional levels for improved/synergistic implementation;
- Strengthen/operationalize the implementation of best practices and innovative approaches related to the active search for TB cases as well as prevention and care;
- Strengthen high-level national and regional engagement with relevant stakeholders and implementers to raise awareness of the disease;
- Strengthen high-level engagement in countries and within the region with relevant actors and stakeholders to raise awareness about TB and advocate for the mobilization of national resources to support strategic TB control activities.



Photo credits : WARN and CARN-TB Secretary

PURPOSE OF THE REPORT

The purpose of this report on the third Global Fund Workshop to Share Best Practices and Lessons Learned in Implementing Innovative Approaches to fight TB is to summarize the presentations and discussions and provide national TB programs, NGOs, CBOs, and other partners with links to available tools and opportunities. It also provides a summary of the key findings and outcomes of the workshop and makes them available to a wider audience.

The workshop provided participants with concrete examples of implemented activities, lessons learned, challenges encountered, and responses to reducing the TB treatment coverage gap for drug-sensitive TB, drug-resistant TB, and latent TB infection.

The report is structured as described below.

- Introduction to the workshop
- Where are we?
- Technical updates on tools and opportunities
- Country experiences
- Priority interventions to step up TB screening, search for missing TB cases, and strengthen TPT
- Conclusions
- Useful links and Annexes

INTRODUCTION TO THE WORKSHOP

The first day of the workshop, organized by the Global Fund in collaboration with WARN/CARN-TB and WHO/TDR, opened with welcoming remarks from Prof. Affolabi of WARN/CARN-TB, Corinne Merle of TDR and Caty Fall of the Global Fund.

Prof. Affolabi from WARN/CARN-TB and Dr. Corinne Merle from TDR presented an introduction to the workshop, welcomed the participants and wished then all a fruitful session and discussions.

Dr. Caty Fall gave an overview of the outcomes achieved by the programs supported by the Global Fund partnership by the end of 2020, including the impact of the COVID-19 pandemic. To improve the performance of TB control programs, Dr. Fall reiterated the importance of urgently strengthening health systems, controlling COVID-19, and making effective use of the various opportunities funded through grants, including the Strategic Initiative to Find Missing people with TB and Catalytic Funds. Dr. Fall also emphasized the need to seek out sustainable solutions to addressing barriers to identifying people with TB and effectively treating them by ensuring the synergy and complementarity of interventions. She also emphasized the importance of "thinking outside the box" in terms of the various innovative, adaptive and integrated approaches to TB care and of using the additional funds (C19RM) to implement them. The fact that all actors involved must ensure leadership in the response to TB at all levels, proactive collaboration on expanding access and improving the quality of TB service delivery, and full accountability to ensure programmatic and financial results was also reiterated.

Nuccia Saleri (The Global Fund) then presented a summary of the workshop objectives and content, which started with sessions focused on systematic TB screening and active case finding of missing people with TB in the WCA Region.

An overview was presented of the situational analysis developed via a questionnaire developed by the Global Fund and the WARN/CARN-TB Secretariat and sent to network countries prior to the meeting, we moved on to technical updates from the WHO, Stop TB Partnership and USAID, and then began sharing country experiences with implementing innovative approaches to systematic screening, active TB case finding and TB prevention. These sessions will be described in the following pages.

WHERE WE ARE?

Where are we in terms of approaches to systematic TB screening and active TB case finding in the region?

Dr. Ablo WACHINOU

Presentation of the results of the survey sent to all the countries part of the network on the current situation regarding systematic TB screening and active case finding in WCA. This survey was carried out via a questionnaire sent to the countries (annex...).

24 Countries responded to the questionnaire: 10/11 CARN-TB and 14/16 WARN-TB Countries.

Information related to the TB screening, screening and ACF approaches

Annex 1 (2020)

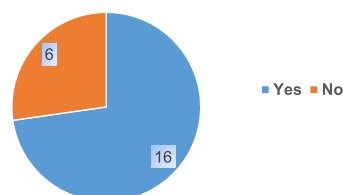
Question	Response	Percentage
Q1: Is TB screening included in the national strategic plans (NSPs) of all responding NTPs?	Yes	100%
Q2: Are financial resources sufficient to implement TB screening and ACF?	No	100%
Q3: Are target populations identified in all responding countries?	Yes	100%
Q4: Are normative documents on conducting systematic TB screening available in all responding countries?	Yes	95%
Q5: Are TB screening and ACF implemented at both the facility and community levels?	Yes	100%
Q6: Are innovative approaches or operational research being implemented for TB screening, ACF, TB prevention and bi-directional TB screening?	Yes	75%
Q7: Are COVID-19 screening and ACF being implemented?	Yes	68%

The highlights of the results are as follows:

- Systematic TB screening for high-risk groups is included in the national strategic plans (NSPs) of all responding NTPs.
- Financial resources are insufficient in most countries; interventions are mainly funded through the NFM3.
- The target populations have been identified in all responding countries most of whom are PLHIV and prisoners, followed by household contacts. Only nine countries include miners in the target populations.
- Normative documents on conducting systematic TB are available in 23 out of 24 (95%) countries.
- The vast majority are implementing routine TB screening and ACF at both the facility and community levels.
- Seventy-five percent of the 24 countries are piloting or implementing innovative approaches and/or conducting operational research on routine TB screening, ACF, TB prevention and 68% are planning or implementing bi-directional TB screening and COVID-19.

TB/Covid-19 bidirectional screening and testing implementation

16 countries of the region are planning or implementing TB/Covid-19 bidirectional screening and testing



- Insufficient financial resources, human resources, and access to screening tools are the main challenges/obstacles to implementing systematic TB screening.

Status of TB Preventive Treatment (TPT) Implementation in the Region

Dr. Ablo WACHINOU

Dr. Ablo Wachinou gave a presentation on results of a survey conducted in November 2020 by the WARN/CARN-TB Secretariat on the status of TPT implementation in the region. A summary of the results is provided below. A total of 21/27 Countries responded: 14/16 WARN-TB and 7/11 CARN-TB.

- All responding countries were conducting TPT activities.
- Twenty countries had a normative document on conducting TPT.
- Most of these normative documents (11) had been revised within the last five years.
- Only half of the countries had included the new WHO recommendations in their TPT normative document.
- The main targets of TPT in the region were PLHIV and children under 5 years of age.
- Nineteen countries were investigating tuberculosis cases.
- The 6 INH regimen was the most frequently used within the network.
- Seventeen countries had included TPT activities in the new GF submission.
- Countries faced enormous difficulties in monitoring the statistics on TPT activities in the region.

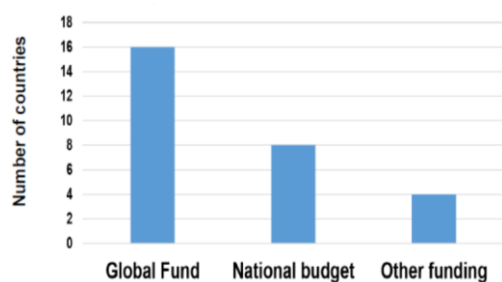


Figure 1: TPT Funding

a

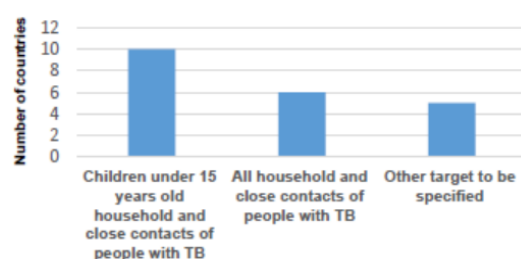


Figure 2: TPT Targets

TECHNICAL UPDATES, INCLUDING TOOLS AND OPPORTUNITIES

The technical updates allowed participants to learn from technical partners about new guidelines and the tools available. The presenters provided the link to several documents that can be very useful to country programs in terms of improving their performance.

WHO Recommendations on Systematic TB Screening

Saskia DEN BOON, WHO/MTB

Dr. Den Boon of WHO/MTB gave a presentation on the WHO recommendations for systematic TB screening. Routine screening has individual and community benefits. It improves access to care, reduces time to treatment, improves TB treatment outcomes, reduces patient costs (including catastrophic costs), and identifies those eligible for TB preventive treatment (TPT) by excluding TB disease.

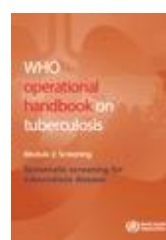
For the community, it reduces disease transmission thereby reducing the number of incident cases. Generally speaking, it is important to remember that systematic screening should:

- be done systematically within the target population;
- use a highly sensitive test to identify people with a higher probability of having active TB;
- then follow with a second test with good specificity to confirm the diagnosis;
- adhere to the principles of medical ethics.

There are four populations that would benefit from systematic screening:

1. Family and close contacts of TB patients
2. People living with HIV
3. Miners and workers exposed to silica dust
4. Persons deprived of their liberty

The documents at the address below provides all the information needed on the WHO recommendations, the proposed diagnostic tools and algorithms as well as practical advice for implementation by national programs.



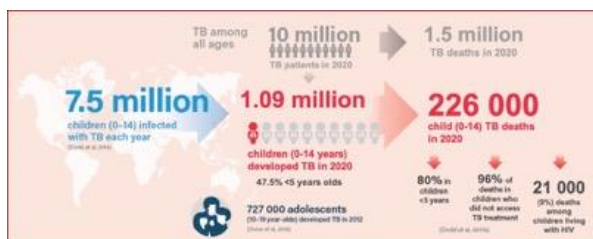
<https://www.who.int/activities/screening-for-tb>

<https://extranet.who.int/tbknowledge>

Updated WHO guidelines on TB Management for Children and Adolescents

Kerri VINEY, WHO/GTB

Dr. Viney of WHO/GTB delivered a presentation that began with an update on the epidemiology of TB in children and adolescents under 15 years of age based on the Global TB Report 2021. It is important to bear in mind that 96% of children who die from TB worldwide have not had access to treatment.



In August 2021, WHO issued a rapid communication to announce updates in the management of TB in children and adolescents that will be detailed in the new guidelines and operational handbook. The new guidelines and operational handbook are now available at:

<https://www.who.int/publications/i/item/9789240046764>

<https://www.who.int/publications/i/item/9789240046832>

They will be disseminated via webinars and at regional and national meetings. The development of training materials on the management of TB among children and adolescents will also start in 2022.

Dr. Viney presented the updates outlined in the rapid communication, available at

<https://apps.who.int/iris/bitstream/handle/10665/344382/9789240033450-eng.pdf>:

- In children under 10 years of age with presumptive pulmonary TB attending health care facilities, integrated treatment decision algorithms may be used to diagnose pulmonary TB. Bacteriologic confirmation should be sought whenever possible, using available and recommended diagnostic tests and appropriate pediatric specimens. The choice of treatment decision algorithm will depend on the diagnostic tests available. Practical advice on treatment decision algorithms for different settings will be included in the operational handbook to be published with the guidelines.
- In children under 10 years of age with signs and symptoms of pulmonary TB, study results support the use of Xpert MTB/RIF Ultra in gastric aspirate or stool specimens as an initial diagnostic test for TB and detection of rifampicin resistance, rather than microscopy/smear culture and drug susceptibility testing (DST). This is in addition to sputum or nasopharyngeal aspirate specimens, which are already recommended by WHO for Xpert Ultra testing in the same population.
- In children and adolescents under 16 years of age with non-severe presumptive drug-susceptible TB, a 4-month regimen (2HRZ(E)/2HR) should be used. Important implementation considerations were noted for determining eligibility for the shorter regimen and will be described in the consolidated guidelines and operational handbook.
- In children with MDR-/RR-TB, for children aged under 6 years, bedaquiline can be used as part of a shorter all-oral bedaquiline containing regimens (conditionally recommended by WHO in 2020) or as part of longer regimens. Delamanid can be used as part of longer regimens for children aged under 3 years. These recommendations allow for the design of all-oral treatment regimens for children of all ages and complement existing recommendations on the use of these two medicines.
- In children and adolescents with microbiologically confirmed or clinically diagnosed tuberculous meningitis, presumed to be drug-susceptible, an intensive 6-month regimen of 6HRZEto can be used as an alternative to the 12-month regimen of 2HRZE/10HR recommended by the WHO.

In high TB burden settings, decentralized, family-centered integrated services can be implemented to improve TB case detection and the uptake of TPT. In this context, decentralized services do not replace, but rather complement centralized or specialized child and adolescent TB services.

Innovations and Availability for Procurement

Zhi Zhen QIN, Stop TB Partnership

Dr. Qin began her presentation by highlighting the detrimental effect of COVID-19 on TB control. TB prevalence studies have shown that between 30 and 60% of culture-confirmed TB patients do not have symptoms. For this reason, more sensitive diagnostic tools are needed to identify more people with active TB.

Chest radiography is a sensitive tool for TB screening, however, access to radiography and lack of human resources to interpret the images, especially outside of major cities, are major barriers to its use. Significant progress has been made with digital radiography (which does not require film), ultraportable radiography equipment and the computer-assisted diagnosis (CAD) system. The following document developed by WHO and the International Atomic Energy Agency gives the technical specifications of portable radio systems:

<https://www.who.int/publications/i/item/9789240033818>

Several x-rays models exist:

<https://www.finddx.org/wp-content/uploads/2021/04/FIND-CXR-CAD-solutions-for-TB-diagnosis-7Apr2021-2pg-spread.pdf>

Two ultraportable devices are in the latest Stop TB Partnership's Global Drug Facility (GDF) catalog (Delft Light and Fujifilm FDR Xair), including installation costs, training and warranty.

In March 2021, the WHO recommended the use of CAD software for TB diagnosis and screening. CAD can provide support to radiologists during the interpretation of the x-ray or it can be used in screening campaigns as a substitute for radiologists. There are several models on the market (<https://www.ai4hlth.org>), two of them are in the GDF catalog: CAD4TB version 7 and InterRead DR Chest version 1. Both can be used with the two ultraportable devices in the GDF catalog. This practical guide provides information on using the ultraportable radio and CAD (available in English and French).

<https://www.stoptb.org/ai-powered-computer-aided-detection-cad-software/cad-and-ultra-portable-x-ray-practical-guides>



Dr. Qin then presented the features of Truenat, which can detect TB and rifampicin resistance (available in the GDF catalog), and can be implemented in peripheral health facilities. The following document (in English and French) provides information on the implementation of Truenat: <https://www.stoptb.org/practical-guide-to-implementation-of-truenat-tests>

<https://www.stoptb.org/guide-pratique-de-mise-en-oeuvre-des-tests-truenat-fr>

In November 2021, StopTB and USAID released guidelines for implementing simultaneous TB and COVID-19 screening:

<https://www.stoptb.org/news/practical-guide-to-implement-simultaneous-testing-tb-and-covid-19>. This document provides references to the various multi-disease diagnosis platforms.

Dr. Qin also pointed out that DataTocare can currently be purchased through GDF.

Implementing and Scaling Up Contact Investigation: Country Experiences, Tools and Resources

Dr. Sevim AHMEDOV, USAID/GH/ID/TB

Dr. Sevim began his presentation with this thought-provoking phrase: Every TB case was once a contact.

Contact investigation has been shown to have an impact on TB case finding and prevention.

Yet it has been neglected (and underfunded) and, generally speaking, is not conducted with the quality it requires. We cannot achieve our TB elimination goals without significantly improving contact tracing. We have the knowledge, expertise, experience, and tools to implement effective contact tracing.

But do we have the determination and the will?

Contact investigation allows for targeting populations active case finding (3-5% TB prevalence in household contacts), identifying people with a recent latent TB infection who therefore are at greater risk of progression (about 50% of household contacts have latent TB). The question is no longer whether to implement an active search for TB patients; it is a question of how to conduct it.

In practice, for each person with TB one should assess:

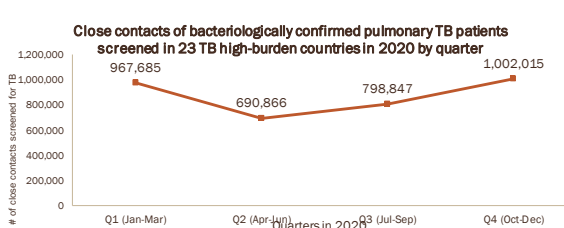
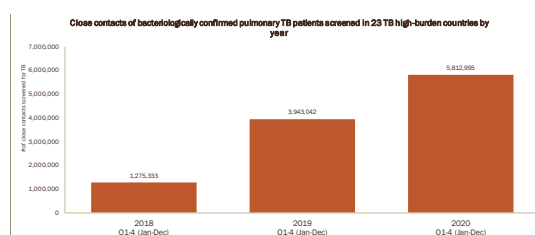
- Who else has been exposed?
- Where and for how long was the person contagious?
- How soon can contacts be contacted, screened and treated for TB or a latent TB infection?

TB contact investigation should be a key intervention in all global and national strategies and guidelines. It is one of the top 10 indicators listed in the WHO strategy to end TB (90% target by 2025), and has been added as a performance indicator to the USAID Roadmap and in the 2020 Performance and Reporting Plan.

However, there are still some gaps...

- TB contact investigation is not implemented as it should be.
- Generally speaking, the quality is lacking due to the absence of clear-cut procedures and definitions of index case, and contacts.
- Data are not standardized, which makes it impossible to assess the contribution of this intervention to early TB case detection and its impact on reducing TB transmission.
- National programs lack the resources needed to conduct investigation activities.

Dr. Sevim shared examples of implementation and results from different countries, including Zimbabwe, Ukraine, Ethiopia and Cambodia. The two graphs below show the evolution of results in 23 high-prevalence countries.



Several normative documents and operational guides are available online:

- Programmatic implementation of tuberculosis contact investigation (pi-tbci)

<https://www.usaid.gov/global-health/health-areas/tuberculosis/resources/publications/pi-tbci>

This document contains a lot of practical information on how to implement contact investigation and the tools involved. For the moment it is available in English only.

- Integrated TB/COVID-19 Contact Investigation Implementation Approach

https://stoptb.org/assets/documents/covid/COVID-TB%20Integrated%20Contact%20Investigation_March2021.pdf

This document helps programs to integrate TB and COVID-19 contact investigation for greater efficiency:

- TB contact investigation as well as in-home screening and COVID-19 testing
- TB contact investigation and screening as well as COVID-19 testing at health centers
- TB contact investigation and screening as well as COVID-19 testing: integrated sample transport
- Systematic approach and strong linkage to community and health facility interventions

In addition to online documents, programs can receive technical assistance for developing strategies, guides, operational plans and training modules, among other things.

A USAID Contact Investigation Task Force was established in April 2021 to:

- Provide strategic direction for scaling up of TBCI
- Provide technical support to programs during the development of the TBCI roadmap, operational activities and implementation.
- Identify and share best practices.
- Support the creation of evidence by prioritizing operational research.
- Translate results and evidence into updated global policies and implementation guidelines.
- Monitor progress on targets set at the United Nations High-Level Meeting (UN HLM): Reach four million children under five years of age and 20 million people in other age groups who are household contacts of people affected by TB by 2030.

Links to download the documents are listed below.

- **PI-TBCI Toolkit**

<https://drive.google.com/file/d/1SyF6IXNYbQpxQdGMAFUhWwq9PgSYpKqm/view>

- **TBCI checklist**

https://drive.google.com/file/d/1IAi_YkIVjpQ2hEitoK2fbhowB9dmPXLb/view

- **TBCI and COVID-19 integrated approach to contact investigations**

<https://drive.google.com/file/d/1MlzmPbaLtrACf87jeyBJox6HKdvOp7U7/view>

- **TBCI and COVID-19 contact tracing costing tool**

<https://drive.google.com/file/d/1yF00ehE8vUO5jqjmwVVlebahK1U2pTxu/view>

- **Bi-directional TB and COVID-19 testing approach**

https://drive.google.com/file/d/1bDTTNu4jKjOXf13IXLvmzna_Hzj9LWtx/view

- **TBCI Webinars - Feb 10-11, 2021 (Final Report)**

<https://drive.google.com/file/d/1YbcXaXfjpqjdcNf4pughdkPx7OdKMFfz/view>

Latest WHO Recommendations on TB preventive treatment (TPT)

Dr. Dennis FALZON of WHO/GTB

Dr. Falzon briefed the participants on the latest WHO recommendations on TPT. After reiterating the importance of TPT for TB prevention, the presenter reviewed some points of the WHO 2020 TPT guidelines. He then presented the elements to consider for a successful TPT adherence plan. These include:

- Review the level of TB knowledge of the people on TPT and their caregivers have.
- Understand the person's motivation for starting and continuing TPT.
- Discuss medication issues.
- Discuss the person's lifestyle.
- Think about TPT planning for the whole household.
- Agree on a TPT support option.
- Provide ongoing support.

The presenter then discussed the main challenges faced in the global deployment of TPT.

- Preventive action is not given priority over curative action

- Adequate mobilization of funds and involvement of non-state actors
- Disruptions due to the COVID-19 pandemic since 2020
- Concerns about drug reactions from TPT, inadequate measures to rule out TB disease, incomplete clearance of TB and the development of drug resistance
- Access to single-dose rifampicin, rifapentine and FDCs
- Contamination of rifamycin with nitrosamines
- Limited possibilities for screening for infection (TST or IGRA) or disease (chest radiography)
- Poor compliance and completion of medication regimen
- Problems with collecting data and monitoring/evaluating work

Dr. Falzon finished the presentation by highlighting some areas to be strengthened for effective global deployment of TPT.

1. Expand risk groups for screening and treatment of TB infection to include: older household contacts, other close contacts, and clinical risk groups.
2. Use new tools to rule out tuberculosis: digital radiography and computer-assisted detection, among others.
3. Choice of treatment: safety and treatment adherence
4. Monitoring and evaluation: tools and indicators
5. Investing in areas with a high-TB burden:
 - Reaching HIV-positive people, households, and MDR-TB contacts
 - Need for a Mycobacterium tuberculosis infection test (TST or IGRA)
 - Need for a chest radiography
6. Strengthen implementation and cross-linkages, HIV and primary health care, the private sector, community providers, special clinics, occupational health and prisons.

Simultaneous Testing for TB and SARS-CoV-2

Dr. Dennis FALZON of WHO/MTB and Dr. Sreenivas Nair, Stop TB Partnership

Dennis FALZON, WHO/MTB, spoke to the participants about simultaneous testing for TB and SARS-CoV-2. This generally happens in one of three situations, namely:

1. **Testing for TB or SARS-CoV-2 in people who may have either**
2. **Testing for SARS-CoV-2 in people with confirmed TB disease**
3. **Testing for TB disease in people with confirmed COVID-19**

Overall, the following principles apply:

- The approaches to identifying TB risk groups, screening, triage, and confirmation of TB remain the same as in the non-COVID-19 setting.
- Testing for SARS-CoV-2 in patients with confirmed or suspected tuberculosis is similar to that of other patients, depending on clinical characteristics, medical history, and local epidemiology.
- Biological samples usually differ: sputum samples for tuberculosis and nasopharyngeal or oropharyngeal swabbing for SARS-CoV-2.
- Integrated molecular diagnostic platforms can test for both pathologies peripherally or by transporting samples to a central point.
- Adherence to test conditions and quality assurance measures is important.
- For triaging patients for infection control and prevention, the samples from the people tested should be collected promptly and under appropriate conditions. Those who test positive are advised to isolate and are referred for care.

- Maintain a record of tests and results for both conditions.

For more information on TB and SARS-CoV-2 screening, click on the links below or scan the corresponding QR codes.



www.theglobalfund.org/media/11438/covid1_tb-testing_briefingnote_en.pdf



extranet.who.int/pqweb/vitro-diagnostics/coronavirus-disease-covid-19-pandemic-%E2%80%94-emergency-use-listing-procedure-eul-open

Dr. Sreenivas Nair of the Stop TB Partnership focused his presentation on implementing simultaneous diagnostic testing for COVID-19 and TB in high TB burden countries. The presenter began by discussing the different scenarios for implementing simultaneous testing for COVID-19 and TB.

- Scenario 1: A country has a properly-functioning laboratory network that performs XpertMTB/RIF testing for TB - XpertSARS-CoV2 tests at Xpert sites. They can ensure sufficient capacity to do both TB and COVID tests with sufficient human resources.
- Scenario 2: Testing capacity for COVID-19 has been established at a number of facilities, but these facilities do not have the capacity to test for TB. Implement a molecular test for TB that uses a multi-disease platform capable of testing for TB and COVID-19 at the existing COVID-19 testing facility.
If molecular testing for TB cannot be implemented at a COVID-19 testing center, ensure that a sputum specimen is collected from each person tested for COVID-19 and refer them to a center that performs molecular testing for TB. If necessary, set up a specimen referral system with a short turnaround time.
- Scenario 3: In the capital city, a high-capacity testing laboratory has been established to perform HIV testing using the Roche cobas8800 system.
- Implementing the cobasSARS-CoV-2 test and Roche's cobasMTB test could be a cost-effective approach to conducting simultaneous testing.
- A regional hospital serves a catchment area that is expected to generate a demand for 20 COVID-19 and 20 TB tests per day, but neither TB nor COVID-19 testing is available at the hospital.
- Implement a specimen referral system linking specimen collection sites to the hospital until a multi-disease testing platform capable of performing TB and COVID-19 testing has been purchased.

The presenter then reiterated the factors to be taken into consideration when implementing the concurrent testing algorithm and associated tests.

- Set up a technical working group to direct the process.
- Choose the screening and diagnostic algorithm.
- Conduct a situational analysis of the laboratory network and facilities.
- Establish a realistic and costed implementation plan and a budget for ongoing costs.
- Select, purchase and install equipment at safe and functional test sites.
- Source a reliable supply of quality reagents and consumables.

- Develop standard operating procedures and clinical protocols.
- Use diagnostic connectivity solutions.
- Implement training, mentoring and skills assessment programs.
- Monitor and evaluate the implementation.



www.stoptb.org/file/9883/download

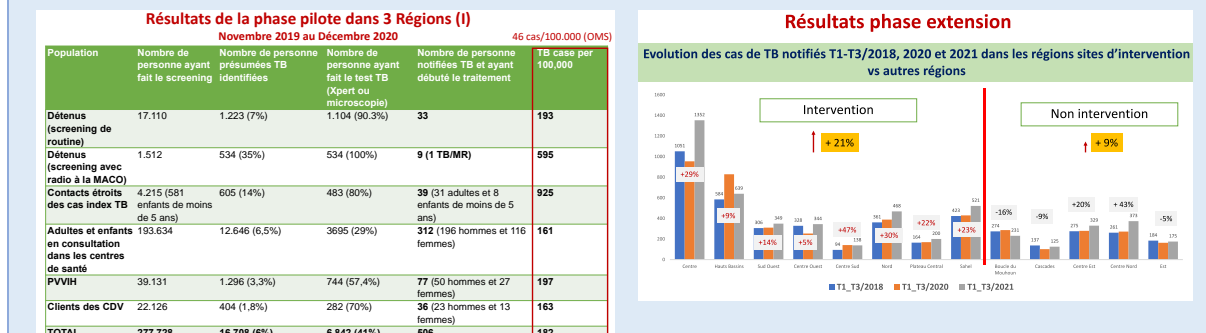
COUNTRY EXPERIENCES WITH SYSTEMATIC TB SCREENING OF HIGH-RISK GROUPS AND ACTIVITIES AIMED AT FINDING MISSING PEOPLE WITH DRUG-SENSITIVE TB AND MDR-TB AND PLENARY DISCUSSION

ACTIVE CASE FINDING APPROACH TO TB AND INNOVATIVE REATB INTERVENTION 2020-2021

Dr. Adjima Combarry, Burkina Faso NTP

The Burkina Faso NTP began the process of implementing REATB (active TB case finding) in March 2019 after a Global Fund-supported study tour in Kenya. Afterwards, the NTP, with technical assistance, developed and validated the technical documents, operational plan, implementation tools, and organized training sessions. REATB provides the active TB case finding among PLHIV, clients of voluntary HIV testing centers, household contacts, prisoners, and people who visit health facilities for any reason. The pilot implementation phase started in three Health Regions in November 2019 and ended in December 2020. The three-year-scale-up phase is funded by the 2021-2023 Global Fund grant and began in 2021.

Dr. Combarry presented the **outcomes** from the pilot phase and the preliminary results of the scale-up phase. It should be noted that during the pilot phase it was possible to collect and analyze data by population. In total, of the 277,728 people who were screened for TB, 16,708 (6%) presumptive TB cases were found, 6842 (41%) were able to complete the diagnostic test and 506 were found to have TB and put on a treatment regimen. The last column in the table below shows the TB notification rate by population **versus** the 46/100,000 expected cases in the general population.



It is also important to note that the male/female ratio at the REATB sites was 1.7 **versus** 2.8 at the national level. This may be an indication that the active search activities have improved access to the TB care for women.

Regions covered by REATB interventions in the 2021 expansion phase saw an increase in TB reporting cases of 21% **versus** 9% in regions that were not covered.

Dr. Combarry emphasized that the impact of Covid-19: i) reduced the frequency of visits to health facilities among the general population; ii) Dr. Combarry emphasized that the impact of COVID-19 i) reduced the frequency of visits to health facilities among the general population; ii) NTP/treatment center (CDT) staff workload and time were earmarked for the pandemic response; iii) local CDTs were requisitioned; iv) monitoring activities were suspended; v) community involvement dropped off or was suspended at the University Hospital Centers (UHCs); vi) a remote consultation system was put in place for some subject at high risk of contracting TB, including diabetics and for this reason it was not possible to conduct TB prevalence survey in diabetics as previously planned. The actions implemented include: the creation and use of NTP-CDT WhatsApp groups; the rapid dissemination of program guidelines by NTP-DRD in order to avoid treatment breaks; the development of a TB diagnosis algorithm, to be used in the context of COVID-19; strengthening of community actor involvement to support directly observed treatment; bi-monthly/monthly provision of drugs to patients; the wearing of protective masks was made compulsory in public places.

The **challenges** observed by the NTP are: problems with transporting samples, especially during the pilot phase (new strategy to be put in place with LaPoste + COVID-19); problems maintaining data collection tools; coverage (less than 1/10 of the FOSAs); high cost and low motivation of actors following the removal of certain benefits, in the period between the pilot phase and the extension phase; and insufficient transport allowance for TB contact investigation.

Lessons learned:

- Contact tracing improves early TB detection;
- Involving prison security guards enables a good rate of TB screening those facilities;
- Gains in TB cases in all target groups;
- Improved access to TB care for women;
- Strengthened collaboration between community actors and health workers.

EXPERIENCE IN THE USE OF X-RAY AND COMPUTER-AIDED DIAGNOSIS

Dr. Yaw Adusi-Poku, Ghana NTP

The beginning of Dr. Yaw's presentation included a statement about the fact that the use of digital radiography and CAD is part of the national health digitization, or e-Health policy. The **objectives** of this study are: 1. Improve the quality of care for TB patients; 2. Increase the detection rate and access to TB care; 3. Reduce the digitization gaps between urban and rural areas; 4. Offer accessible and integrated services; Strategically align with the government's digitization strategy. Through the use of digital x-Rays and CAD, the NTP aims to:

- A. Improve TB control, diagnose 85% of TB cases and save the lives of approximately 12,000 people
- B. Strengthen the diagnostic capabilities of 53 public hospitals by making use of digital radiography
- C. Produce 270,000 x-ray images per year.

Implementation:

- Doctors in primary health care facilities were trained to read X-rays.
- The CAD4TB system was installed in 54 high-traffic facilities (pediatric clinics, facilities for the care of PLHIV, NGO community screening centers, schools, as well as public and private facilities).
- The diagnostic algorithm was revised and a screening registry has been set up.

X-ray screening Result from 2018 to Mid 2021

CAD4TB Dashboard

Print date/time: 10-5-2021 18:06

Number of studies	
in total	328397
with a CADScore	121492
without a CADScore	206905
with CADScore >50	59473
with CADScore <30 (0 included)	241584
with bodypart 'Chest'	211067
with remaining bodyparts	117330

NTP Tele-radiology categories



- All 54 x-ray devices with CAD4TB are connected and transmit the images and data of each patient to the NTP's central archive.
- Prescribers less skilled in reading X-rays use the CAD score to identify suspected TB subjects for further analysis.
- A quality control system was put in place involving the review of a sample of images by radiologists.

Next steps:

- Purchase digital radiography equipment for TB/HIV (*one-stop shops*).
- Conduct contact investigation and TB preventive treatment (TPT).
- Liaise with civil society to mobilize communities to do contact tracing.
- Search for children with TB with the support from the strategic initiative.

TB SCREENING FOR PREGNANT AND POST-PARTUM WOMEN

Ménonli Adjobimey, Benin NTP

Dr. Ménonli presented the results of screening in pregnant and postpartum women in Benin for TB. The **objectives** of this study were:

- Implement enhanced TB screening for pregnant women.
- Describe the characteristics of women with TB symptoms.
- Assess the performance, cost, feasibility and acceptability of such a program in Cotonou, Benin.

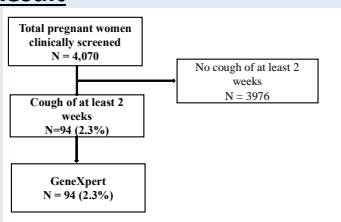
The estimated TB incidence in Benin is 55 cases/100,000; TB/HIV co-infection is 16%, 370,000 pregnancies/year.

Implementation was carried out in eight prenatal centers in Cotonou (population of 685,000, HIV prevalence of 1.9%) from April 2017 to April 2018.

The inclusion criteria were:

- Women between 14 and 45 years of age who presented for prenatal care
- Pregnancy confirmed
- Informed consent to participate

Result



	Our results	Others authors
Cough in pregnant women	94 (2.3%)	Kancheya <i>et al</i> 23% (Zambia) Kosgei <i>et al</i> 8% (Kenya) Silus <i>et al</i> 3% Burkina
TB in pregnant	49/100000	(28.11 per 100,000) 2016-2018 female population of same age Benin
Outcomes babies	1 death 1 normal child	Sobhy <i>et al</i> (date of traitement) 1 st trimester of pregnancy: no premature births, low birth weight babies, or perinatal deaths, 2 nd , 3 rd trimester of pregnancy 33% premature, 61% low birth weight, 23% perinatal deaths

Of the 4070 women screened, 94 had a cough that was more than two weeks old and were tested using GeneXpert. The incidence was 49/100,000. The estimated cost per woman screened was 1.12 USD. The cost per diagnosed TB case was 2,271 USD. For the population of Benin, it would cost 414,000 USD to find 182 cases. The experience made it possible to produce informative posters and share the TB diagnosis algorithm with prenatal consultation centers.

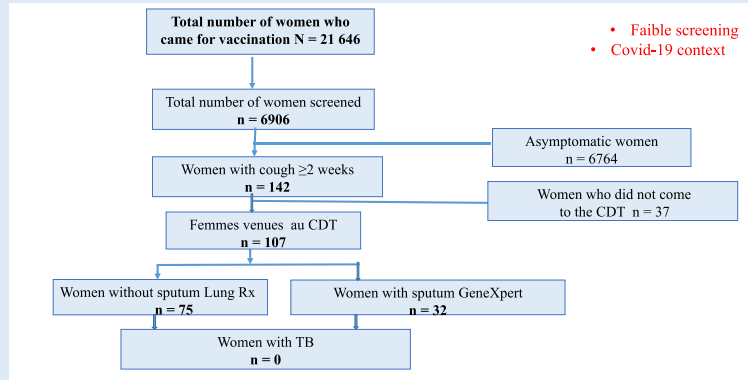
Another study TB in mothers under 12 was conducted Atlantic Coastal **objectives**

1. Estimate TB among mothers under 12 as part of immunization

2. Assess the feasibility of the intervention.

The study was conducted at eight vaccination centers from October 2020 to February 2021. Visits were aligned with the immunization schedule: at birth, six weeks, 10 weeks, 14 weeks and nine months. A total of 21,646 women came to the clinic but only 6906 (32%) were screened. No women were diagnosed with TB.

The key finding was that the prevalence of TB in pregnant and postpartum women appears low. However, given the complexity of TB in pregnant women, it is prudent to maintain the active TB screening intervention on a routine basis, without introducing new tools.



on pulmonary of children months of age in 2020 in the Region. The were:

prevalence of children months of age childhood visits.

TB SCREENING CAMPAIGNS FOR MALNOURISHED PEOPLE

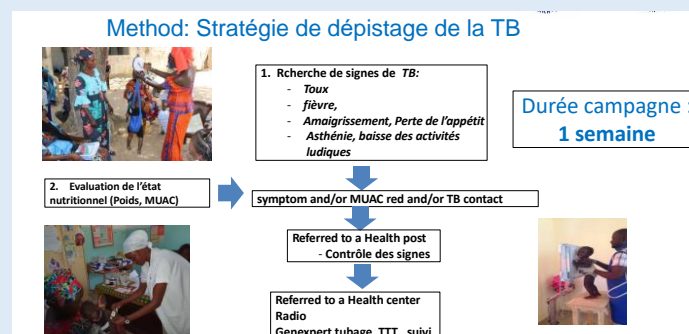
Prof Nafissatou Toure, Senegal

Prof. Nafissatou presented the pilot feasibility study on improving TB screening paired with screening for malnutrition in the health districts of Thiès and Tivaouane (Thiès Region).

Childhood TB is underdiagnosed in Senegal and affects mainly the country's poorest who have limited access to health care facilities. The national malnutrition control unit (CLM) organizes active screening for acute malnutrition on a quarterly basis. On that basis, TB screening was paired with those quarterly campaigns. Zones covered: 5 PS in Thiès and 5 PS in Tivaouane.

The **objectives** were to evaluate the feasibility, acceptability and efficacy of integrating active TB screening with the malnutrition screening conducted by the CLM.

All stakeholders were invited to provide input and the cascade training was organized.



In total, 26,543 children under the age of 15 were screened, including 11,586 children under the age of 5 and 559 malnourished children. During the screening, 1,364 were defined as presumed cases of TB, 1,235 were seen at a health facility and 1,065 had a chest x-ray. A total of five cases of TB were detected (of which four were under the age of five).

Lessons learned:

- Modify strategies during the campaign.
- Use mobile radiology.

- Use advanced strategies including placing mobile radiology equipment alternatively in the health facilities in Thiès.
- Use of health facility ambulances to send children to the health district.
- Suggestion: Assign two teams of radiology technicians to each health facility to reduce the risk of exposure to X-rays and take the maximum number of children.

Results

In one week of the screening campaign:

- Five cases of childhood TB were diagnosed and placed on treatment.

In 2019

- Seven cases of childhood TB were reported in Tivaouane and 14 were reported in Thiès.

In 2020

- There was a marked reduction in the number of childhood TB cases reported (Covid-19 pandemic)
- From the perspective of quality, it was possible to better understand the perception held by communities regarding testing children for TB, the consequences of which often delay diagnosing it; the fact that screening is free; the campaign and the means of reviewing the health status of children; good level of acceptance of the paired screening in the communities.

Findings:

- Integrated strategy for screening for TB and malnutrition: programs integration
- Feasible
- Acceptable
- Effective (five TB cases identified in one week)

INTENSIVE TB CASE FINDING AT COMMUNITY HEALTH CENTERS AND HOSPITALS IN CAMEROON **Zourriyah Adamou, Center for Health Promotion and Research**

Ms. Zourriyah presented the results of the CHECK TB project in Cameroon. The project got underway in Q4 2018 and ended in 2021 and was funded by TB REACH, StopTB. The project covered over 700 health facilities in six of Cameroon's 10 regions. An analysis of the patient pathway for TB services was conducted: only 9% of people who present for a consultation have access to TB care at health facilities.

The **objective** of the project was to improve the TB notification rate in the six regions.

Interventions:

- 1 - Link at least five community health centers to each TB center (CDT): implementation in 117/150 CDTs and 608 community health centers.
- 2 - Adapt the sample transport system to suit the site: transport agents, transport via motorcycle and transport by agents.
- 3 - Train health workers to conduct TB screening at each entry point (outpatient, HIV, diabetes and malnutrition).
- 4 - Motivate better performance.
- 5 - Use the m-Health application.

Outcomes:

More than 4,000,000 people were screened at health centers; 167,508 were tested for TB (52,980 were seen at a community health center and therefore the samples were shipped out); and 16,592 cases of TB were confirmed bacteriologically.

The number of people screened to identify a TB patient was eight in hospitals and 20 in community health centers, or a total of 10 for the project.

During the project, there was a 45% increase in the number of people tested for TB, as compared with the previous year (14,454 per quarter in 2018 versus 20,939 per quarter in 2019-2020). In Q2 and Q3 2020, a decrease was noted due to Covid-19.

The notification rate in the area covered by the project (6 regions with a population of 16 million) increased by 9% for all forms of TB and by 10% for bacteriologically-confirmed TB, as compared with the other four regions not covered by the project (population 7.3 million).

This intervention made it possible to expand TB diagnostic services to include community health centers (transport of samples) and therefore to bring the service closer to the population and build a system for transporting samples that fits the local situation as closely as possible. The approach worked well and covered 725 health centers and involved 1,597 health workers who shared their experiences on WhatsApp groups and were awarded prizes based on their performance.

TB CASE FINDING WITHIN INTERNALLY DISPLACED POPULATIONS (IDPs)

Anyaike Chukwuma, Nigeria NTP

Dr. Chukwuma delivered a presentation on Nigeria's experience with active TB case finding within internally-displaced populations starting in Q1 2020.

According to the International Organization for Migration (IOM) data, there are more than two million internally-displaced persons (IDPs) in Nigeria, due to the presence of Boko Haram. These people are living in camps, in camp-like structures, and in host communities in three states: Adamawa, Borno and Yobe.

IDPs are at higher risk for TB for several reasons:

- poor access to health services (including tuberculosis services);
- malnutrition;
- overcrowding;
- poor ventilation;
- insufficient knowledge and awareness;
- high uptake of informal health services.

In line with human rights measures, TB services have been expanded to cover this group of people by implementing active TB case finding.

Interventions implemented:

- i. Initially, IDPs camps and host communities in the three states were mapped.
- ii. Key stakeholders, community volunteers and community health workers (CHWs) have been identified and trained on TB control.
- iii. Door-to-door (or tent-to-tent) verbal screening of households was conducted by trained community actors.
- iv. Mass screening was conducted (i.e., when there was an influx of large numbers of new IDPs into camps and host communities).
- v. Contact tracing was carried out.

TB Presumed IDPs were also tested for HIV, based on national guidelines.

Prior to the screening activities, advocacy and community mobilization were conducted.

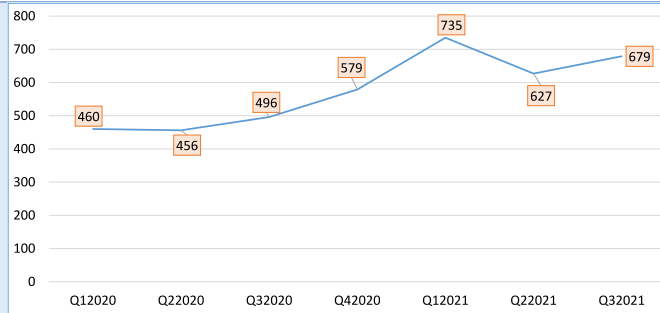
Sputum samples were collected on-site and transported to the nearest GeneXpert site for diagnosis, while the results were obtained and reported back to the community.

TB cases diagnosed within the target population were accompanied by volunteers to designated treatment centers and any cases involving rifampicin resistance were managed according to national guidelines.

Results measured:

- Number of presumptive TB cases detected
- Number of samples transported and tested
- Number of TB cases of all forms detected
- Number of all forms of TB cases on a treatment regimen
- Number of cases of drug-resistant TB identified

The following graph shows the number of reported TB all form cases:



The interventions carried out made it possible to identify at an early stage more than 4,000 cases of TB in the camps. In addition, GeneXpert usage was improved, the notification rate increased in the states covered and TPT for contact children was initiated.

This approach was innovative for several reasons: involvement of host communities and camp leaders, use of volunteers selected among camp residents to conduct training and testing, and monthly analysis of the TB cascade to measure the effectiveness of the intervention.

Due to COVID-19, prevention SOPs and sample transport were necessary, even during the lockdown. The main challenges have been stigma and the mobility of IDPs. Education and the use of volunteers in the camp have helped to contain these problems and reduce the number of cases lost to follow-up.

Lessons learned:

1. Involving camp volunteers contributed to the success of the project.
2. Good results of active TB case finding in IDPs.

Next steps:

- Develop a means of ensuring continuity of treatment when IDPs return from camp.
- Use digital x-rays as a screening tool in camps (planned for next year).

PUBLIC-PRIVATE PARTNERSHIP FOR THE FIGHT AGAINST TB IN GUINEA

Magassouba Aboubacar Sidiki, Guinea NTP

Dr. Sidiki delivered a presentation on Guinea's experience in involving pharmacies in the fight against TB **in the Commune of Matoto** in Conakry between November 2019 and June 2020.

It should be noted that:

- The private sector provides important services for communicable disease management and is the first point of contact for many people.
- Stigma associated with TB further discourages patients from seeking care in the public sector.
- Low levels of funding (34% of the National Strategic Plan) and low coverage of TB services are challenges for tuberculosis control.

In Guinea, there are several opportunities for private-sector involvement:

- The existence of private and faith-based centers, and pharmacies, among other things;
- The existence of well-equipped health departments at the health facilities of mining and industrial companies with qualified personnel;
- Several companies have a community welfare system that includes the care for health problems;
- Close involvement of the private sector in the management of epidemics (Ebola, Lassa fever, COVID-19, etc.).

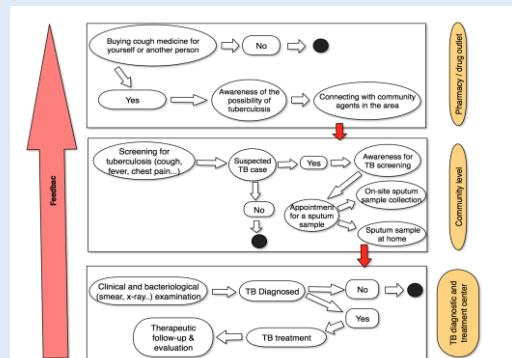
Objective:

Implement and evaluate a TB screening strategy for people who buy cough medicines at pharmacies and other drug outlets.

Implementation:

Fifty pharmacies or drug outlets were included in the commune of Matoto (approximately 700,000 inhabitants). People with respiratory symptoms who purchased cough medication was screened for

TB (microscopic test or GeneXpert MTB/Rif). The samples were transported on motorcycles by community actors with a data collection system on their phones (ODK and ONA).



Outcomes:

A total of 916 people were tested for TB, 54% were male and the median age was 30 years. Cough and fever were the most frequent symptoms (89% and 87%, respectively). The average duration of symptoms was 14 days. Only 15% of the participants reported living with a contact for at least 5 days. TB was confirmed in 14% (128) of those who were tested.

Lessons learned:

- Pharmacies are a potential source of TB detection (self-medication, non-specific prescriptions, etc.);
- The private sector is willing to participate in health care free of charge;
- Good synergy between pharmacies and TB centers (CDTs);
- Extend the local activities (combine with at-home visits);
- Collect sputum from patients at home (patients unable to travel);
- Scale up the strategy (the routine strategy began in Conakry in 2021 with high-traffic pharmacies under NFM3).
- Extend the program in the regions of Kindia, Labe and Nzrekore in years 2 and year 3.

Challenges:

- Problems collecting information on other pharmacy customers (to obtain the presumed/all pharmacy customers ratio)
- Data collected in several phases before submission to the ONA platform
- Possibility of some patients not getting in touch with community stakeholders or refusing to return to the CDT after having been in touch with the agents
- Delays in obtaining some TB test results and HIV test results

Limitations:

- The study was conducted only in the capital city.
- Traditional therapists were not involved in the study.
- GeneXpert was not used systematically for TB diagnosis.
- Radiography was not used (due to the cost).

Conclusion

- The pharmaceutical sector plays a key role in the missing TB case circuit.
- This sector's involvement can help reduce the number of missing TB people.

COUNTRY EXPERIENCES IN TB SCREENING, INCLUDING CASE INVESTIGATION, CONTACT TRACING AND TB PREVENTION

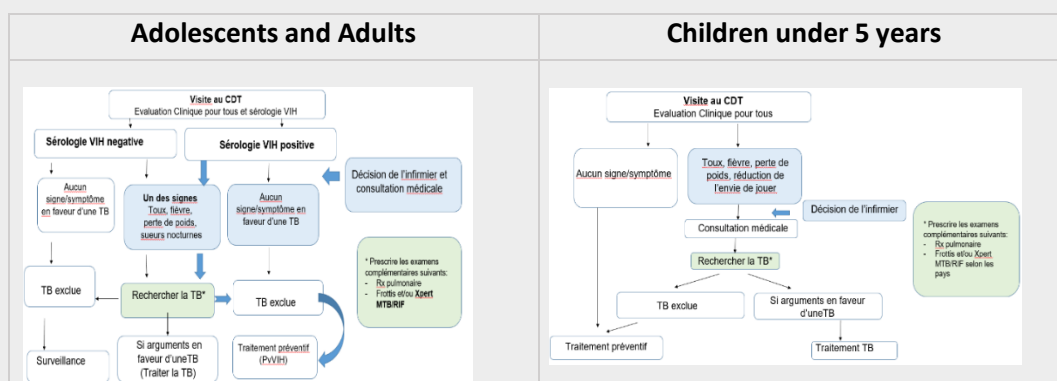
CONTACT TRACING IN EIGHT FRANCOPHONE COUNTRIES (CETA PROJECT)

Kobto Ghislain Koura, the Union

Objectives:

- Implement contact tracing under program conditions.
- Advocate for the expansion of this intervention.

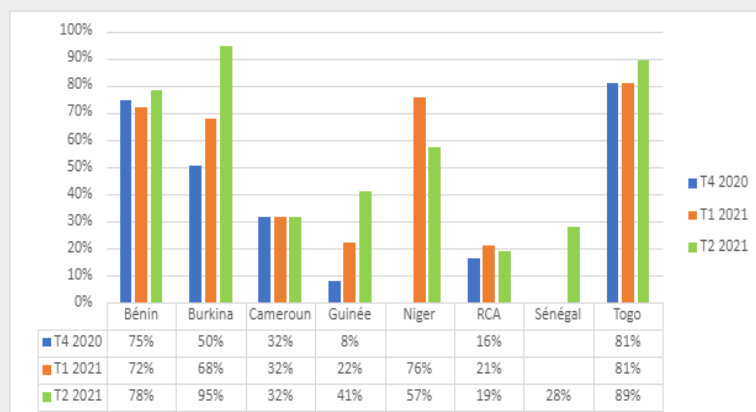
Method: Contacts of bacteriologically-confirmed TB patients (PLWHIV and children under 5 years of age) were investigated in eight of the region's countries (Benin, Burkina Faso, Guinea, Niger, Senegal, Togo, Cameroon and CAR), as part of NTP program activities, from Q4 of 2020 to Q3 of 2021. The algorithms used are presented in the figures (*in French*)



Outcomes:

- At least 4,700 home visits were completed;
- 7,391 children under the age of 5 were visited and 104% were put on TPT or TB treatment.
- 153 PLHIV were visited and 105% of them were put on TPT or TB treatment.

The graph shows the proportion of home VISITS conducted / number of index cases (community indicator) in the 8 Countries.



Next steps:

- Advocate for scaling up
- Conduct a cost-effectiveness survey of the intervention
- Publish the results
- Build capacity in the area of human resource techniques
- Advocate for including home visit costs in the GF grants

IMPROVING IDENTIFICATION OF PEDIATRIC TB CASES AND ACCESS TO PREVENTIVE TREATMENT FOR CHILD CONTACTS: EXPERIENCE FROM THE CAP TB PROJECT

Vicky Ilunga, EGPAF

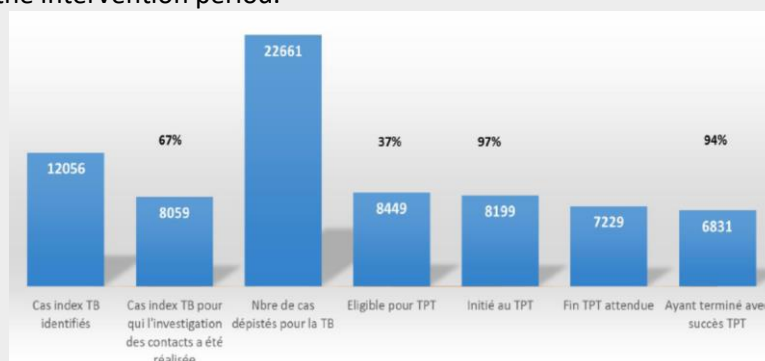
Background:

- Low level of pediatric TB (11%) reporting for over 10 years
- Low level of access to and coverage of TPT for those eligible (HIV+, children and contact children under 5)

Methodology: Intensified TB case finding and contact tracing (children aged 0-14 years) at 25 sites in 10 health zones in Kinshasa (DRC) between February 2019 and June 2021. Compared results with data from April 2017 to March 2018.

Outcomes:

- 223,177 children were screened for TB at project sites.
- Of which 3% (6,504) were identified as suspected cases
- Half of the “presumptive” child TB cases (3,270) were diagnosed, of which 36% (1,174) were confirmed using a bacteriological test (Xpert).
- The average number of children diagnosed per site per month increased from 3.4 to 5.5 during the intervention
- 12,056 index TB cases were identified, of which 67% (8,059) were investigated for 22,661 contacts screened for TB.
- 8,199 contacts were started on TPT (out of the 8,449 eligible) and 6,831 successfully completed it.
- The average number of children placed on TPT per site, per month, increased from 0.8 to 13.2 during the intervention period.



Next steps:

- Build the capacity of pediatric TB care providers (all points of entry).
- Invest in high-impact interventions (external consultations, contact investigation, nutrition and HIV), advanced sample collection procedures and molecular diagnostic tests.
- Secure the funding needed to ensure the sustainability of CaP TB activities.

INNOVATIVE APPROACHES IN THE FIGHT AGAINST TUBERCULOSIS IN BURUNDI

Dr. Joselyne Nsanzerugeze, NTP Burundi

Identifying barriers to tracing people who have been in contact with MDR-TB patients in Burundi

Objective: Reduce the time to MDR-TB diagnosis and management.

Method: Active tracing of contacts tied to MDR-TB cases tested in the city of Bujumbura and TB screening of the MDR-TB contacts.

Outcomes: Twenty-three index MDR-TB patients were investigated and 54 contacts were found, including 31 males, 18 children under 15 years of age, and 16 symptomatic contacts who provided sputum samples that tested negative using GeneXpert.

Innovation:

Lessons learned:

- Consider health education and community involvement as a means of making home visits more acceptable.
- Consider preventive MDR-TB treatment for high-risk individuals.
- Use the cluster model to better target active screening of the entire neighborhood.

Evaluate the acceptability and effectiveness of using video calls to remotely follow-up on TB treatment in the context of COVID 19: a study was conducted at seven intervention CDTs and compared to seven control CDTs in the municipality of Bujumbura.

Objectives:

- Evaluate the effectiveness treatment via remote video call.
- Assess the level of acceptability of supervised DOT for patients and care providers.

Method: Conduct a prospective descriptive study at seven Bujumbura municipal TB centers (CDTs) and compare the results with seven other CDTs in Bujumbura. The effectiveness and acceptability of using video calls for follow-up purposes (e-DOT) was measured and compared with classic DOT during the COVID-19 pandemic. The study population consisted of health care providers and bacteriologically-confirmed pulmonary TB cases (TPB)+ patients at the 14 CDTs involved in the study.

Innovation:

- A smartphone was given to each patient who met the criteria and was included in the study for video calls as a way of following up on the treatment. The times of the calls were decided in advance with the patient.
- Each patient was given a plastic box for transporting and storing medications.
- One-on-one interviews were conducted with the TB patient and a family member when treatment was initiated.

Lessons learned:

- The WhatsApp application worked very well for all patients taking part in the study.
- There was good engagement on the part of the providers involved in the study.
- The appointment times chosen for taking medication were respected by patients and care providers.
- DOT via video call was approved by providers and patients.
- Smears taken from study participants tested negative in the second month of treatment.

COUNTRY EXPERIENCES WITH APPROACHES TO OVERCOMING BARRIERS TO TB DIAGNOSIS, PREVENTION AND TREATMENT

UPDATE ON THE DRC EXPERIENCE WITH DEPLOYING TB COMMUNITY RIGHT AND GENDER (community Right and Gender (CRG) TOOLS

Thandi Katlholo, Stop TB Partnership

Maxime Lungu, Club des Amis Damien

Background

- The GF's new 2023-2028 Strategic Framework calls to intensify CRG engagement in the fight against TB.
- Multiple CRG tools and guidelines are available.
- Possible funding mechanisms for affected communities.
- Technical assistance is available for CRG TB interventions.

Method: The target population consisted of people affected by TB, policy makers and all TB stakeholders, including civil society organizations (CSOs).

The following indicators were measured:

- National policies and strategies that are based on and are in line with CRG principles;
- National TB control programs and services are demand-driven, accessible, of high quality, focus on key populations, and are supported by strong community systems;
- TB decision-making, governance, and accountability involve all stakeholders in a meaningful way;
- Communities affected by TB are engaged, trained and mobilized for a comprehensive response to TB;
- **Regional and global TB control platforms are engaged in an informed dialogue based on the principles of CRG.**

A number of **CRG tools** have been deployed in DRC, including:

- NGRC and stigma assessments and an action plan
- CLM - One Impact Platform;
- CFCS application developed;
- High-level advocacy;
- **Engagement with regional and global platforms**



STP Intervention areas (ToC) from 2015-2021	TGF HR&G Program Areas & TA	Implementer(s)	Status Quo	Funding Source
CRG & stigma assessments & Action planning	Stigma and discrimination reduction Reduce gender-related barriers to access	Club des Amis Damien (CAD)	Completed Mid 2018 – mid 2020	STBP
Nairobi strategy	Legal services, Ensuring confidentiality and privacy, Training for health care providers on human rights and medical ethics	Club des Amis Damien and NTP	Not started	
CLM – OneImpact Platform	Monitoring and reforming laws, regulations and policies	Club des Amis Damien (CAD)	On going	CFCS / STBP and TGF
Demand creation CFCS	Legal literacy ("know your rights") Mobilizing and empowering patient and community groups	Club des Amis Damien (CAD)	On going Know your rights – linked to CLM	CFCS / STBP
National Stop TB Partnership	Sensitization law-makers and law enforcement agents	Stop TB RDC	Not started	
High Level Advocacy & Engagement of Regional and Global platforms	Short Term and Long term CRG TA	Club des Amis Damien (CAD) and Stop TB RDC	On going	STBP

Next steps:

At the regional level

- Implement regional capacity building interventions in the region.
- Advocate to have TB included in PPR dialogues.
- Ensure links exist between regional and national platforms.
- Provide support for mobilizing resources to implement the key actions listed below.

At the national level

We recommend the following concrete measures:

- Begin conducting CRG assessments.
- Speed up the CRG assessment processes in Mali and Ghana.
- Step up the launch and/or finalization of the action plan in Cameroon, Benin and Niger.
- Follow-up on plans to conduct stigma assessments in all WCA countries except Ghana and Nigeria.
- Strengthen existing community-led partnership platforms and upcoming work.

STRENGTHENING ACCOUNTABILITY AND SPEEDING UP PROGRESS TOWARD ENDING THE TB EPIDEMIC BY 2030 IN WEST AFRICA

Bertrand Kamper, DRAF TB

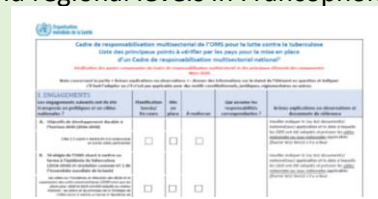
Background:

- Lack of accountability in TB control
- Low level of community response and engagement

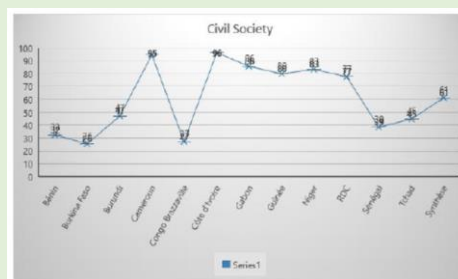
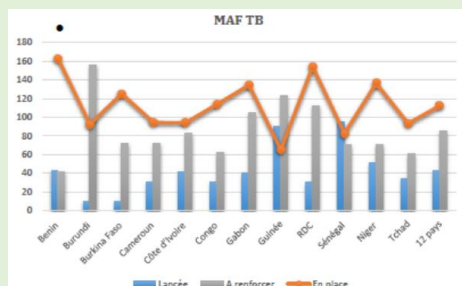
Objective: Improve the coordination of civil society and communities and their capacity to contribute to UNHLM's TB accountability efforts at the national and regional levels in Francophone Africa.

Method: Semi-structured interviews based on the WHO checklists were conducted with NTPs from 12 French-speaking countries in West Africa.

Outcomes: Not one country in the region will meet the screening, diagnosis, and prevention targets set for 2022.



The image shows a screenshot of a WHO checklist titled 'Cadre de responsabilisation multisectionnel de l'ONUS pour la lutte contre la tuberculose (pour des priorités pointées à vérifier par les pays pour la mise en place d'un Cadre de responsabilisation multisectionnel)'. It includes a table with columns for 'Indicateurs', 'Données', 'Statut', and 'Commentaires'. The table lists various indicators related to TB control, such as 'Proportion de la population cible atteinte par les services de diagnostic', 'Proportion de la population cible atteinte par les services de traitement', and 'Proportion de la population cible atteinte par les services de prévention'. The status for each indicator is marked as 'Non atteint' (Not achieved).



Lessons learned:

- There is scope for civil society to strengthen the accountability of the UNHLM Political Declaration on TB.
- Multi-sectorial collaboration with civil society and communities affected by TB contributes to high-level accountability at the national and regional levels.
- The supportive role of the WHO is relevant in translating global commitment into practice at the national level.
- The involvement of parliamentarians represents value added for TB advocacy at the national and regional levels.
- Civil society funding mechanisms, such as the Stop TB Challenge Facility for Civil Society, contribute to the empowerment of communities affected by TB.
- Additional tools are needed to follow recommendations on this work.

Next steps:

- Track progress on the 2018 UNHLM policy statement and related CRGs in 12 Francophone African countries using the One Impact dashboard.
- Strengthen the organizational, advocacy, and the technical TB capacity of TB-affected communities and civil society in 13 countries to engage in the UNHLM's advocacy work.
- Participate and engage in TB advocacy and accountability initiatives at the national, regional and global levels.

SURVEY ON BEST PRACTICES AND OPPORTUNITIES FOR COMMUNITY ACTORS TO ENSURE THE CONTINUUM OF QUALITY HEALTH SERVICES IN 5 WCA COUNTRIES

Hugues Traore, RAME

Background: The role of community actors must be given careful consideration in the context of Global Fund grant formulation and implementation.

Methodology: A cross-cutting descriptive and qualitative study was designed to document community practices and analyze the factors involved in combating HIV/AIDS, tuberculosis, and malaria in challenging operating environments.

The methodology adopted consisted of conducting a literature review and interviews with key actors as a way to collect data on activities in the field.

Lessons learned:

- Countries need to share information with each other.
- Problems persist in some countries, while others have a solution that works.

Next steps:

- Draft a scientific article.
- Publish newsletters (GF, WHO, etc.).
- Hold regional workshops to share information and experiences.

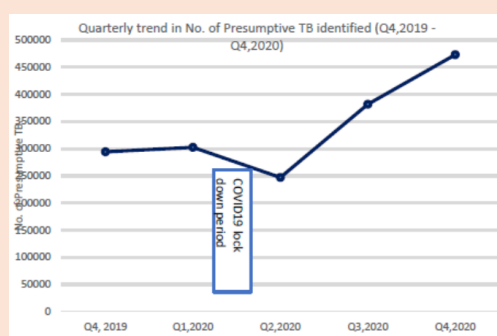
COUNTRY EXPERIENCES WITH INTEGRATED APPROACHES IN THE CONTEXT OF COVID-19

BI-DIRECTIONAL SCREENING FOR TUBERCULOSIS AND COVID-19

Anyaike Chukwuma, Nigeria NTP

Background: The COVID-19 pandemic has caused several disruptions in TB services in Nigeria:

- There has been a decrease in the number of hospital visits and a drop in the overall number of suspected cases accessing TB screening.
- Panic in the community led people to avoid revealing any respiratory symptoms so as not to be confined.
- The tuberculosis treatment center was converted into an isolation center.



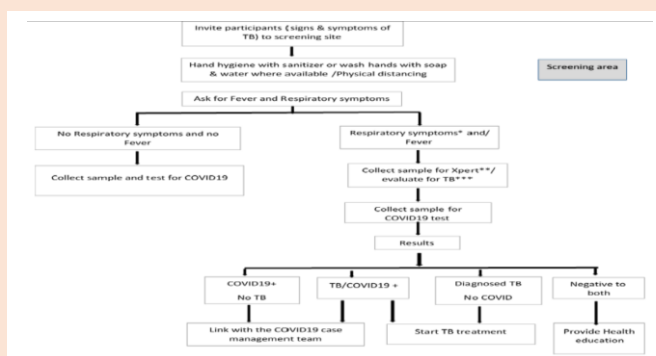
To maintain TB services during this period, it was necessary to leverage COVID platforms for the TB control program.

Intervention: Bi-directional screening for TB and COVID-19

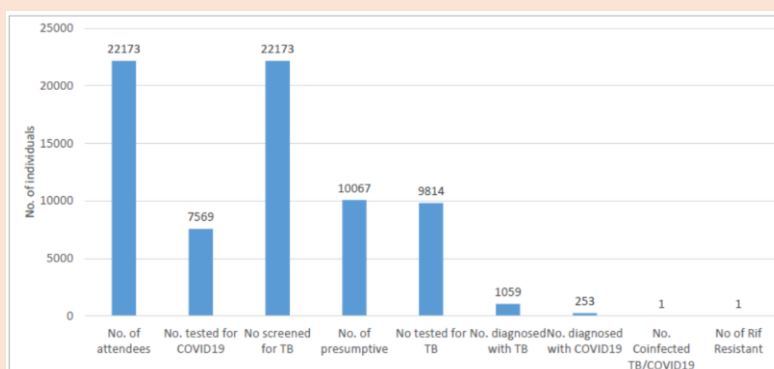
Objective:

- Establish a mechanism to coordinate joint TB and COVID-19 activities at the state and national levels.
- Support bi-directional TB and COVID-19 screening and testing in the different countries.
- Strengthen the integrated management of TB and COVID-19 at home and in health facilities, including isolation centers.
- Strengthen appropriate infection prevention and control measures for implementing joint TB/COVID-19 activities.

Methodology: Use of community services for diagnosing two diseases in presumptive cases of either disease, identified through community-based screening.



Outcomes: Two hundred fifty-three cases of COVID-19 were found among presumptive TB cases and 1,059 cases of TB were found among presumptive COVID-19 cases in 9 countries. One TB-COVID-19 co-infection was detected.



Lessons learned:

- Strengthening inter-agency collaboration is essential.
- Building a resilient and sustainable system with the capacity to self-manage emerging problems is essential when implementing an intervention.
- Most of the coughing symptoms are due to TB and not to COVID-19.
- Integrating and leveraging existing systems can help lower costs.
- It is important to have a quick response mechanism that can be easily adapted in case of an emergency.
- Establishing a robust community-based system that will work at the grassroots level can help drive the process by using infotainment. This can be done by building the capacity of community organizations and involving them in planning, implementing, and monitoring the intervention.

Next steps: WHO will conduct the planned scale-up using USAID funding.

TUBERCULOSIS SCREENING IN COVID PATIENTS

Soumana Alphazazi, Niger NTP

Background: Tuberculosis is the second leading cause of death from a single infectious agent (COVID-19 being number one). Evidence suggests that the COVID-19 pandemic has had an impact on TB control. The presence of COVID-19 patients in the hospital presents an opportunity to screen for TB.

Objective: Evaluate the efficacy of this strategy in patients with presumptive COVID-19 and/or those recovering from COVID-19 who have persistent respiratory signs.

Methodology: A cross-cutting study was conducted during screening for active TB and a longitudinal study to follow-up on patients diagnosed with TB. The study was conducted in 4 COVID-19 screening and treatment centers in Niger and Guinea, i.e., in a total of 8 centers. An economic study was also carried out. In Niger, presumptive cases of COVID-19 with respiratory symptoms were simultaneously screened for TB and COVID-19. In Guinea, patients with respiratory symptoms received a negative PCR test result or had already recovered from COVID-19 were screened for TB.

Outcomes: A total of 863 persons were screened: 105 in Niger and 758 in Guinea. Sixty-one patients tested positive for COVID-19 and 43 for TB. Five patients had a TB/COVID-19 co-infection.

	Total		Niger		Guinea		p-value
	No.	%	No.	%	No.	%	
Total	863		105		758		
Covid-19 diagnosis &							<0.001
Negative	801	92.8	57	54.3	744	98.2	
Positive	61	7.1	48	45.7	13	1.7	
Unknown	1	0.1	0	0.0	1	0.1	
TB diagnosis							0.2
No TB	820	95.0	97	92.4	723	95.4	
TB	43	5.0	8	7.6	35	4.6	

Lessons learned:

Screening for TB and COVID-19 at the same time will help limit the pandemic's impact on TB control.

Next steps:

- Finish drafting an article currently being written.
- Scale up the strategy in Niger within the framework of NFM3.

INTEGRATED COMMUNITY-BASED TUBERCULOSIS AND HIV CARE FOR DRUG USERS (PUDs) IN THE CONTEXT OF COVID-19

Hie Mathieu, Médecins du Monde, Côte d'Ivoire

Background: These activities were implemented on the heels of two studies and were rolled out in a legislative environment that penalizes drug users.

Objectives: Reduce the rate of TB- and HIV-related morbidity and mortality among PUDs within the context of COVID-19.

Implemented interventions:

- TB activities
 - Active presumptive case finding at health centers and consumption sites
 - Follow-up activities for PUDs with a confirmed case of TB
- HIV activities
 - Prevention activities
 - Care activities for PLHIV PUD
- COVID-19 activities
 - COVID-19 patrols

Results:

- Of the 1,316 PUDs who took part in the TB prevention program, 122 were diagnosed with TB, including 4 cases of MDR-TB.
- Of the 1633 PUDs who took part in the HIV prevention programs, 20 were tested HIV positive and were put on a treatment regimen.
- Individual protection kits were distributed to 1,034 PUDs who were, in that way, educated about COVID-19.

Résultats de la période de Janvier à Septembre 2021	Hommes	Femmes	Total
Nombre de consommateur de drogues (y compris les injecteurs) bénéficiant de programme de prévention sur la TB	1 207	109	1 316
Nombre de consommateurs de drogues (y compris les injecteurs) dont les échantillons de crachats sont envoyés des sites de consommation au niveau des CAT	377	30	407
Nombre de consommateurs de drogue (y compris les injecteurs) confirmés TB	116	6	122
Nombre de cas de TB MR	3	1	4
Nombre de consommateur de drogues (y compris les injecteurs) bénéficiant de programme de prévention VIH (paquet de services définis)	1 374	259	1 633
Nombre de consommateur de drogues (y compris les injecteurs) qui ont fait un test VIH et connaissent les résultats durant la période de rapportage	1 374	259	1 633
Nombre de UD testés positifs	14	6	20
Nombre de UD dépistés positifs (y compris les UDI) admis dans les services de soins et mis sous traitement durant la période	14	6	20

Lesson learned:

- The implementation of a community-based approach coupled with good collaboration with clinical actors is important.
- Community involvement at all stages of care significantly improves patient retention.

Next steps

- Effective implementation of the project in other districts
- Official opening of a drop-in center in the Cocody Bingerville district
- Improving retention in PLWHIV PUD care programs

PRIORITIZED INTERVENTIONS AND MOST FREQUENT CHALLENGES IDENTIFIED BY PARTICIPANTS, FOR IMPROVING TB SCREENING, ACTIVE SEARCH OF PEOPLE MISSING WITH TB, TB PREVENTION AND TPT

Plenary discussion sessions at the end of the first and second days of the workshop gave each country the opportunity to summarize approaches, results, opportunities, and challenges in implementing systematic TB screening, interventions to find missing people with TB, and scaling up TPT.

Group discussions were followed by a plenary discussion in which representatives from each country shared their views on the following issues:

- Which approaches to systematic TB screening are being used by the different countries and which interventions are needed to find missing people with TB? What is needed to strengthen them?
- Which interventions are countries prioritizing to improve TB screening and active case finding (at least two priorities)?
- Which interventions have countries put in place to strengthen TPT? What more needs to be done to improve it?

Following the discussions, each country shared a few slides with the WARN/CARN-TB Secretariat, based on the outline provided, to summarize that country's challenges and opportunities as well as the planned and prioritized interventions.

The following tables summarize the main challenges reported with regards to TB screening, identification of missing people with TB and improving TB prevention/TPT and most relevant interventions planned by the countries participating in the workshop.

TB screening, identification of missing people with TB	
Interventions proposed by WARN/CARN-TB countries	<ul style="list-style-type: none"> - Actively searching for TB people among close contacts of TB patients; - Actively searching for TB people among nomads, those involved in transhumance and groups living in hard-to-access areas; - Actively searching for TB people among those who have been internally-displaced due to natural disasters (floods, drought, etc.); - Actively screening detainees, IDPs, refugees and miners for tuberculosis using mobile radiography (screening campaigns); - Actively searching for tuberculosis people among the malnourished, especially children; - Training and motivating providers at non-TB centers (CDT) health care facilities on active research, passive research and sample transport; - Intensified TB people screening at the health facilities entry points and at community level ; - Using mobile radiography to conduct screening campaigns; - Training NTP staff and care providers on communication methods and advocating for the mobilization of domestic and external resources; - Training and motivating community outreach workers involved in combating TB; - Decentralizing TB diagnosis and management sites; - Expanding the GeneXpert network and using molecular testing as a first-line treatment; - Enhancing the sample transport; - Implementing simultaneous TB and COVID-19 screening; - Strengthening collaboration with the HIV program to improve data collection; - Strengthening collaboration with private clinics and pharmacies; - Strengthening collaboration with mother/child health and nutrition recovery departments; - Strengthening collaboration with partners, CBOs/CSOs, other ministries and local authorities for active TB case finding; - Organizing mobile teams to conduct systematic screening of high-risk populations using ultraportable radiography equipment and CAD.
Main challenges Listed by WARN/CARN-TB countries	<ul style="list-style-type: none"> - Insufficient human resources and problems with motivating staff; - Problems with transporting samples (organizational problems, especially the distribution of samples); - Geographic and funding issues as well as lengthy travel claims and audit procedures that result in late reimbursements; - Insufficient diagnostic tools (GeneXpert, radiography, CAD, etc.); - High level of dependence on external support;

	<ul style="list-style-type: none"> - Delayed start-up of program activities related to funds mobilization; - Problems with the maintenance of molecular diagnostic tools, including the GeneXpert; - Problems with establishing an effective laboratory network; - Quality of human resources; - Unmotivated staff, especially laboratory staff; - NTP staff and health care providers lack the communication skills needed to communicate with the public (outreach, IEC, BCC, etc.); - Insufficient involvement on the part of non-CDT providers in passive tracing, active case finding and sample transport; - Not enough GeneXpert tests available to make it a priority test; - Insufficient funding for TB control (government, local and international partners); - Not enough community outreach workers involved in combating the disease; - Insufficient level of active search for TB within vulnerable populations; - TB is underdiagnosed in children, considering staff capacity and access to diagnostic facilities; - Security issues; - Coordination of partner interventions.
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TB prevention/TPT	
Interventions proposed by WARN/CARN-TB countries	<ul style="list-style-type: none"> - Diagnosing latent TB in high-risk groups (children under 5 years of age, pregnant women, people living with HIV and contacts of tuberculosis cases); - Transitioning from TPT with Isoniazid alone to treatment with Rifapentine and Isoniazid; - TPT for children under 15 years of age who are contacts of pulmonary tuberculosis cases (extending it from 5 to 15 years): pilot phase; - Conducting in-depth investigations of multidrug-resistant tuberculosis contacts (family and professional contacts); - Implementing a short TPT treatment pilot phase for children under 15 years of age; - Revising national guidelines based on the latest WHO recommendations; - Offering chest x-Rays to symptomatic individuals with negative GeneXpert test results; - Implementing a TPT pilot project for people over 5 years of age who are most at risk for TB using new short treatment regimens; - Strengthening TB screening and TPT for PLWHIV; - Expanding TPT coverage to include adolescent and adult contacts (malnourished, immunosuppressed and miners, prisoners and PUDs), in addition to the children under 5 years of age and HIV subjects already covered; - Involving community stakeholders in TB contact tracing

**Main challenges
 Listed by
 WARN/CARN-TB
 countries**

- Lack of standardized tools (registers, guidelines and modules) for implementing TPT based on the latest WHO recommendations;
- Limited number of health facilities offering TPT;
- Stigma associated with TB;
- Human resources;
- Insufficient funding;
- Stakeholder acceptance of TPT for PLWHIV;
- Problems with the means of eliminating active TB;
- Lack of transportation for following up with contacts;
- Security issues;
- Lack of electronic tools to register contact subjects and collect TPT data;
- High cost of the isoniazid-rifapentine (HP) regimen;
- Acceptability of and compliance with TPT because eligible individuals are healthy;
- Mainstreaming data collection and reporting tools, including capacity building for workers at different levels;
- Educating clinicians about using TPT;
- Effective involvement of CSOs in active case finding of contagious TB patients.

CONCLUSIONS AND TAKE AWAY MESSAGES

Following the 2018 and 2019 workshops to share best practices and lessons learned in managing TB in West and Central Africa, this 2021 TB workshop was particularly timely as all the countries are in the middle of the implementation of their NFM3 grants which include a number of interventions to find missing people with TB and a progressive expansion of community engagement in the TB response. All countries have been impacted by the Covid-19 pandemic to a different extend and need to revert back on track the implementation and scale-up of TB interventions. Furthermore, countries, will soon need to start preparing for the upcoming NFM4.

Participants very much appreciated the value of learning from each other and discussing on implementation challenges and opportunities, as well as on interesting research approaches and innovations. The CRG component and civil society participation, along with various experiences brought by partners implementing projects and pilots at country level, enriched the content of the discussions.

This workshop gave us the opportunity to the participants to:

- Share many interesting countries' experiences on systematic TB screening and active case finding (ACF) among various groups, including IDPs, prisoners, people presenting at health facilities, malnourished children and pregnant women; and with the product procurement management (PPM) approach, the use of new tools, including the chest X-rays and CAD. Some interesting analyses showed how different "entry points" can help to find missing people with TB as well as to access TPT. And in some cases, cost analyses allowed also toto assess the efficiency of the interventions implemented.
- Describe and share existing opportunities at the international and national levels to increase access to TB care, including for vulnerable and high-risk individuals. Country

programs and participants asked many "practical questions" to learn from other countries' colleagues while considering the feasibility of applying similar approaches in their own countries.

- Note the need for strong leadership from national programs in terms of implementing the approaches and monitoring as well as analyzing the results. Such implementation involves introducing a "package of interventions/tools" to enable implementation and monitoring that should be coordinated by national programs. Although some countries presented their experience in the context of operational research, it was emphasized that the implementation of innovative approaches cannot be done simply by adopting and adapting a "different and innovative" approach that has proven effective in other countries.
- Describe and discuss barriers to accessing TB services and mitigation measures, in particular in terms of community engagement and community-based organizations.

Key takeaways are:

- Systematic TB screening is feasible and should be included in all national TB strategic plans, especially for PLWHIV, household contacts, prisoners, and miners.
- It is very important to better integrate TB control interventions with other programs (HIV, nutrition, etc.), in order to engage the private sector and local NGOs.
- In some countries experiencing security problems, a specific intervention for IDPs must be implemented, in collaboration with humanitarian NGOs, UNHCR, IOM, etc.
- Various countries plan to use new tools, particularly ultraportable x-ray equipment and CAD, and they also plan to expand the molecular-TB testing network.
- Countries agree on the importance of involving more the public and private sectors and some plan a interventions with local pharmacies, as presented by Guinea, and with mining companies.
- Many countries are planning to decentralize access to TB care and implement the program quality improvement and efficiency approach (PQE), and engage with health services other than CDTs in screening for TB.
- In some countries, innovative approaches introduced as a project (e.g., STOP TB's REACH, The Union's CETA, Egpa TB -CAP) have been earmarked for expansion under the NFM3.
- Several key challenges remain, and especially in terms of human resources (lack of motivation to do TB control work, lack of incentives, etc.), sample transport and maintenance of the GeneXpert network.
- Financial gaps exist in most countries, interventions are funded mainly by NFM3, and there is a need to increase domestic funding, both public and private. Also, there is the need to prioritize target populations and/or target intervention areas to better utilize the available funds.

LINKS

- All presentations

<https://www.dropbox.com/sh/3x1us5qoisqkvgc/AADBGMa8nJY0tB-16wPoVvU7a?dl=0>

ANNEXES

AGENDA

Thursday, December 16, 2021

Time	Theme	Person responsible
Chair: Prof. Sow Oumou		
8:00 to 8:15	Introduction to the workshop	Prof. Affolabi, WARN-TB/CARN-TB Secretariat Caty Fall, The Global Fund Nuccia Saleri, The Global Fund
8:15 to 8:45	Where are we in terms of approaches to systematic TB screening and interventions for active TB case finding in the region?	Prudence Wachinou WARN-TB/CARN-TB Secretariat
8:45 to 10:00	Technical updates and discussion - WHO recommendations on systematic TB screening - Updated WHO guidelines on TB management for children and adolescents - Screening and diagnostic tool innovations and availability for procurement	- Saskia den Boon WHO GTB - Kerri Viney WHO GTB - Zhi Zhen Qin Stop TB Partnership
Coffee break		
Chair: Dr. Bisso Annie (Cameroon)		
10:20 to 13:00	Country experiences with systematic TB screening of high-risk groups and activities aimed at finding missing cases of drug-sensitive TB and MDR-TB and plenary discussion - Burkina Faso: REATB project - Ghana: Experience with using Rx and computer-aided diagnosis - Benin: TB screening of pregnant and postpartum women - Senegal: TB screening campaigns for malnourished people - Cameroon: Intensified search for TB cases at community health centers and hospitals in Cameroon - Nigeria: Active TB case finding within internally-displaced populations - Guinea: Public-private partnership for TB control in Guinea	- Adjima Combary, Burkina Faso NTP - Yaw Adusi-Poku, Ghana NTP - Ménonli Adjobimey, Benin NTP - Prof. Nafissatou Toure, Senegal - Zourriyah Adamou, Center for Health Promotion and Research - Anyaike Chukwuma, Nigeria NTP - Magassouba Aboubacar Sidiki, Guinea NTP
Lunch		
Chair: Dr. Bangoura Adama (Guinea)		

14:00 to 14:30	Technical updates (with country experiences) - Contact case study as a high-yield intervention for active case finding of TB disease and TB infection and the urgent need to scale up: country experience and technical resources	- Sevim Ahmedov , USAID
14:30-15:15	Discussion: What approaches are countries taking to systematic TB screening and what interventions are needed to find missing TB cases? What is needed to strengthen them? Exercise: Country priority interventions to improve TB screening and case finding (identify at least two priorities)	Everybody
Coffee break		
15:25 to 16:10	Plenary discussion of the results from the group work	Countries

Friday, December 17, 2021

Time	Theme	Person responsible
Chair: Dr. Chukwuma Anyaie (Nigeria)		
8:30 to 9:00	Where are we in terms of TB preventive treatment in the WCA sub-region?	Prudence Wachinou , WARN-TB/CARN-TB Secretariat
9:00 to 9:30	Technical updates - Overview of the latest recommendations on TB preventive treatment	Dennis Falzon , WHO GTB
9:30 to 10:30	Country experiences: Tuberculosis screening, including case investigation, contact tracing and TB prevention - Contact tracing in eight Francophone countries (CETA PROJECT) - DRC: Improving identification of pediatric TB cases and access to preventive treatment for child contacts: experience from the CAP TB project - Burundi: TB and MDR-TB contact management	- Kobto Ghislain Koura , the Union - Vicky Ilunga , EGPAF - Joselyne Nsanzerugeze , Burundi NTP
Coffee break		
Chair: Dr. Kaswa Michel (DRC)		
10:50 to 12:10	Country experiences: Overcoming barriers to TB diagnosis, prevention and treatment and plenary discussion - TB CRG Tools Update on deployment progress: the DRC experience - Update on the status of implementation of the costed TB CRG action plan in the DRC - Strengthening accountability and accelerating progress to end the TB epidemic by 2030 in West Africa - Survey on best practices and opportunities for community actors to ensure the continuum of quality health services in 5 WCA countries	- Thandi Katlholo , Stop TB Partnership - Maxime Lunga , Club des Amis Damien - Bertrand Kampoer , DRAF TB - Hugues Traore , RAME
12:00 to 13:00	Technical updates - Simultaneous screening for TB and SARS-CoV-2 - Implementation of simultaneous diagnostic tests for COVID 19 and TB in high TB-burden countries	Dennis Falzon , WHO GTB Sreenivas Nair , Stop TB Partnership
Lunch		
Chair: Dr. Gning Barnabé (Senegal)		
14:00 to 15:20	Country experiences: Integrated approaches given the COVID-19 situation and plenary discussion - Nigeria: Bi-directional screening for tuberculosis and COVID-19	- Anyaie Chukwuma , Nigeria NTP

	- Guinee and Niger: Experience with testing COVID patients for TB - Côte d'Ivoire: Integrated community-based TB and HIV care for IDUs/DUs in the context of COVID-19	- Soumana Alphazazi, Niger NTP - Hie Mathieu, Médecins du Monde, Côte d'Ivoire
15:20 to 16:00	Discussion of interventions implemented by countries to strengthen TB/PT prevention. What more needs to be done to improve it? Exercise: discuss priority country interventions on contact tracing and TPT approaches (identify at least two priorities)	Everybody
Coffee break		
16:20 to 17:00	Plenary discussion of the results from the group work	Countries
17.00 to 17:30	Future prospects - Summary and key findings	Prof. Affolabi, WARN/CARN -TB Maria Kirova The Global Fund Anna Scardigli The Global Fund Everybody

List of Participants

Angola	DISADIDI Ambrosio
Benin	AFFOLABI Dissou - WACHINO Ablo
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Burundi	NSANZERUGUEZE Joselyne
Cameroon	MANGA Henri - KUATE Albert
Congo	OKEMBA OKOMBI Franck Hardaim
Côte d'Ivoire	KOUAKOU Jacquemin
Gabon	DAPNET TADASTIN Patrice - MAHOUNBOU Jocelyn
Gambia	SAMATEH Wandifa
Ghana	ADUSI POKU Yaw
Guinea	BANGOURA Adama - MAGASSOUBA Aboubacar Sidiki - CAMARA Siriman
Guinea Bissau	PEREIRA Inacio
Liberia	SAYE Rufus - CHOLOPRAY Ernest
Mali	DIALLO Youssouf
Mauritania	KANE El-Hadj Malick
Niger	ALPHAZAZI Soumana

Nigeria	ANYAIKE Chukwuma - LAWANSON Teniola
RCA	GANDO Hervé Gildas
DRC	KASWA Michel
Rwanda	MIGAMBI Patrick
Sao-Tome and Principe	SOUSA Bonifacio
Senegal	GNING Barnabé
Sierra Leone	MANJO Lamin
Chad	OUMAR Abdelhadi
Togo	DOGO Fall - SAMEY Agbenyegan - KUSIAKU Théophile
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aDSM consultant	SOULEYMANE Bassirou
The Union	KOURA Kobto Ghislain
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