

# Wave 10 Quarterly Narrative Report

## TB Preventive Treatment Projects

Project Information	
TB REACH Project Short Code	10429
Grantee organization	Rede Brasileira de Pesquisa em Tuberculose, REDE-TB
Country	Brazil
Report Period	01-07-23 to 30-09-23

### Activities

#### 1. Describe the activities that were implemented this quarter.

- How are you reaching out to and identifying persons with TB infection and diagnosing persons with active TB who are excluded from TPT?
- Are you using any tests for infection this quarter?
- What treatment regimens are you using?  
(indicate if and when there were changes in the test or treatment regimen used?)

This is the second trimester of activities (project started 10-Apr-23). PPD arrived in Brazil in August and was gradually distributed to the states in September. During PPD stockout, there was a technical note from the NTP recommending treating all priority groups (namely contacts <15 and PLHIV) without testing. Since September, we are back to testing with TST, IGRA available for children 2-10, for PLHIV and other immunosuppressed groups. Treatment of choice is 3HP (4R or 6H available, the first for children <10, adults > 50 and people with liver disease and the second for those with rifamycin intolerance or resistance).

#### Training activities:

##### 1. National guidelines

Virtual training sessions on National Guidelines have slowed down but continued through Q3-2023, provided by the grantee and the NTP. We have organised 4 training sessions for health care workers (HCW) and 4 for community health agents (CHW) in Q3. In these sessions, we had 1176 HCW attendees and 1938 CHW attendees, totalizing now 2627 HCW and 4514 CHW attendees since the beginning of the project.

During the first 2 months, as there was a PPD stockout, the training focused on guidelines for TPT in the absence of tests. We are now back to “regular” training. We also conducted some sessions without lecture, stimulating the HCW to share their experiences, difficulties in the field and knowledge gaps.

We have added a short online knowledge, attitudes and practices (KAP) survey after these sessions, but had few replies (n=20). Although satisfaction with the activity remains very high (new surveys available at <https://forms.gle/T7KsvDNRqZfARq3cA>), there are still some knowledge gaps. For example, when asked which is the first test to be performed on contacts aged 10 years or younger, regardless of symptoms, 35% answered sputum smear. On the other hand, 100% agreed that preventive treatment is the most effective strategy to achieve the goals of eliminating

tuberculosis and that it reduces the chance of developing the disease, 98% affirm that they have acquired new knowledge through training and consider themselves capable of applying it in their professional routine. In Q4, we will conduct a larger KAP survey for HCW and CHW. We plan to conduct the next training sessions based on these surveys and the identified knowledge gaps.

In addition to the virtual sessions, presentational training sessions are being provided by some municipal TB programmes, led by the ExpandTPT staff in the city. See follow up of technical visits report ahead, for more details.

## 2. TST training

PPD has arrived in August and was distributed in September. The NTP started training for TST in São Paulo at the last week of September (ongoing in Q4 in the other cities). Training consists of a virtual 2-hour session and a practical demonstration and evaluation of trainees onsite, both for injection and for reading (induration measurement). 14 multipliers participated in the training in São Paulo, all were considered apt (8 with 80% or higher concordance\* - between 45–56 readings per professional and 6 professionals between 64–77% concordance). Silicone arms were used in these training sessions, besides patients' arm induration reading. These trainees will now disseminate in-service training to the ExpandTPT participating clinics' staff, not necessarily with some many arms to consider them APT for routine reading in service. We are evaluating, after training, the satisfaction and perception of HCW about this simplified training, the caliper rules and the silicone arms.

\*concordance defined as difference between trainer and trainee measurement of induration within 2 mm.

## 3. Registry book and surveillance tool

In addition to the 274 HCW trained to use the new registry books in Q2, we trained, in Q3, 733 additional HCW (this is not included in the HSS indicators table 2.4). The books are being filled in most clinics and we are now (Q4) performing data quality control. The project team goes to the clinics, check the books (completeness and adequacy of information) and double-check the REDCap site for 20% of the data. Up to now, we could only check the proportion of identified contacts (in general, over "100%" on the basis of 3 contacts per index case), as PPD was out of stock. We also explored the number of TPT initiated, and proportion of treatment completion, knowing beforehand that the main barrier has been testing for TBI. Data on the acceptability of this tool (registry book and REDCap graphs) will also be gathered in Q4.

## 4. Educational material

We have finally distributed the educational material to HCW as well as to clients and CHW. There were launching events (virtual and presentational, in Manaus) with the participation of a large audience (over 3000 for the national virtual session for the CHW material launch).

Please see final edition of material distributed in Q3 for HCW, CHS and clients at [Repositório ExpandTPT | \(redetb.org.br\)](https://repositorio.expandtpt.org.br)

### NTP/Rede-TB technical visits to the 5 cities:

A technical visit to São Paulo and its conclusions/recommendations was reported in RP1. We here summarise the visits to the other 4 cities. The full city reports (by the Health Secretariats) are available at [https://drive.google.com/drive/folders/1cSZRw20FixkUSXNgeQVQWgE9RHXCidjN?usp=drive\\_link](https://drive.google.com/drive/folders/1cSZRw20FixkUSXNgeQVQWgE9RHXCidjN?usp=drive_link).

Main bottlenecks and solutions are further discussed in section 2. The NTP and the ExpandTPT staff all agree that these initially unplanned visits were a very useful activity in Q3.

Feasibility mapping:

We have built a checklist to assess necessary human resources, infrastructure and complementary services in all 327 participating clinics. Data were collected in 140 of these clinics, data gathering will be finished by Q4 and a detailed report will be produced for the NTP and Stop TB Partnership. We also intend to publish these results, as we believe this is an important piece of information for Health Authorities and stakeholders.

CAB activities:

At least one CAB member participated in all training sessions mentioned above (for HCW and CHW) between July and September 2023. The most relevant activity of the CAB in 2023Q3 was the production of a training booklet (TB contact guide) specific for CHW, in direct consultation with 177 CHW from all 5 cities occurred in the previous quarter. The material is available at <https://redetb.org.br/guia-das-ac-s-para-tpt/> and has been widely disseminated during a webinar session on 31-Aug-2023, with over 3,000 participants. See details of CAB activities in section 10 ahead.

Information system:

The Manaus information system is well implemented, despite still some issues to be solved. Based on the project's registry book and taking advantage of the ExpandTPT experience, the NTP has designed a new TPT registry book, with all steps of the cascade.

CAD:

Technical visits and service arrangements to implement an inhouse CAD to the 5 clinics selected for CAD implementation during Q2 in Rio de Janeiro were carried out. They are located in different areas of the city. We observed that each service has specificities and unique characteristics, as seen in the table below.

In a previous project (for the CAD development, funded by the Brazilian Government in the scope of the BRICS TB Network), a system called DOROTHY (Data cOnsolidation fROnTal cHest x-raYs) was developed. This system can store different databases of medical images and process them to feed a machine learning model based on Convolutional Neural Networks aimed at classifying CXR as positive or negative for TB.

We are currently implementing the DOROTHY system at each of the five clinics, taking into account each of the specificities for receiving x-ray images. The model of the X-ray machines, the profile of the machine operators, the average number of exams performed per day, month and year are summarised in Annex 1. A particular issue identified is how the result should be presented to the service team. Different solutions will be needed.

Client satisfaction survey:

A "baseline" satisfactory survey was conducted among clients of TB services in 79 primary care clinics in four of the five cities (Porto Alegre did not collect data) in Q3. Questionnaires were applied by HCW. Out of 371 respondents, 282 had the disease and 89 were contacts, 51.5% were men, the average age was 38.6 ( $\pm 17.2$ ) years. All respondents, except 7 who did not answer this question, declared that they had managed to receive care from the professional they were looking for. The responses on the Likert scale are summarised in Annex 2, by municipality. The weighted

average satisfaction score with care on the day was 9.4 and 9.5 for recommending the clinic to friends or relatives.

Although the questionnaires indicate a high degree of user satisfaction with all aspects evaluated in this survey, interviews carried out by health professionals themselves are highly likely to generate response bias. Furthermore, the vast majority of respondents were people with tuberculosis, little information about the perception of contacts was collected. The number of respondents was very heterogeneous by city, with São Paulo representing the majority of opinions and Rio de Janeiro, a city with a very high incidence rate and large population, very little represented.

We will hire a professional team to conduct satisfaction interviews at the end of the project (Q2-2024), carried out by neutral interviewers, external to the services, specifically aimed at contacts, with a balanced number of interviewees.

Other direct activities:

Together with a medical student from McGill, Canada, we collected costs for future cost-effectiveness analysis. We are collecting additional cost data for training.

We have applied for additional funds from the Brazilian Ministry of Science and technology to expand the ExpandTPT program to 3 additional cities in 2024/2025. Funds for carrying out the Cy-TB validation and feasibility study were included in the submitted project.

Communication and dissemination activities:

We have presented the ExpandTPT project in the X Workshop of REDE-TB, held in Salvador 7-10 September, with its preliminary results, as part of an invited lecture "Challenges to treat who is not ill". We were also invited to present the project at the 17th Expoepi Meeting, promoted by the MoH, to be held 7-10 November in Brasília.

We keep social media activity (Instagram, <https://instagram.com/expandtpt?igshid=MzRIODBiNWFIZA==>) with pictures, interviews,

The Communication Report is available at [https://drive.google.com/drive/folders/1w3LMd6gb5\\_WauhJ926wzngNlvZ-H8OT6?usp=share\\_link](https://drive.google.com/drive/folders/1w3LMd6gb5_WauhJ926wzngNlvZ-H8OT6?usp=share_link)

*Implementation (Operational) Success and Challenges*

- 2. a. Describe any operational successes or challenges you had implementing your TPT program.**
- How have you built health care worker capacity for identifying persons with infection and providing TPT?
  - Were there any concerns for program staff or health care workers providing the services?
  - Were there any notable benefits or challenges for persons screened, tested, or treated?
  - Describe any procurement challenges or successes?
  - Is TPT adequately recorded and reported in your evaluation population?
- b. How has the project adjusted to maximize these successes and mitigate the challenges described in 2a above?**

Main challenges and recommendations were identified and discussed during the technical visits of the NTP and the grantee to the cities.

In all cities, **reorganisation of services** was recommended, with TST offered **at the first visit** in more facilities, by more HCW (currently none or one HCW is considered apt), on a **daily** basis (except Thursdays if clinics do not open on Saturdays), without scheduling (upon **free demand**) and **reading scheduled for 48h later** (currently 72h), to be able to catch eventual missing readings. Also, a 3HP stock should be ready in the clinic to be given to the client on the day of the prescription in all clinics, and **nurses should be able to prescribe 3HP**. The NTP was clear in all visits and in their report that some flexibilization on the national recommendations are needed, to adapt to the local possibilities. This includes **waiving TST/IGRA testing or chest X-rays** where these tests are unavailable or unreasonably delayed. They were also clear that **certification for TST application is not needed in routine**, only multipliers need certification. The NTP strongly recommended to **follow the protocol of TPT prescription by nurses** in all cities.

In Q2, we reported the technical visit and recommendations for São Paulo. We here summarise, by city, the other reports. During these visits, the heterogeneity of the health care system and specificity of the challenges were clear, and specific recommendations were done by the NTP.

1. Recife: This city is located in the poorest region of the country, the Northeast, has high TB incidence and mortality rates. Universal coverage by primary care is low. There was a recent change in various health management sectors, with great uncertainty about the near future of public health actions. The contract of TB managers is vulnerable, they are not hired directly by the city, but by third-party organisations, with no stability in their contract. However, the district level managers are public employees. The grantee has hired a TB manager assistant, Mayara Ferreira, who is leading the ExpandTPT activities in Recife. The TB manager, Monica Simplicio, is very involved as well.

IGRA is not available in the public health system. With PPD shortage, no tests for TBI were available in Recife in Q3. Moreover, imaging tests are provided by an agreement with private services. Three of these private services offer 87 CXR monthly to the public system. These 261 CXRs are reserved, for obvious reasons, to people with symptoms. Chest X-rays are currently performed under a "regulation" system - SISREG (which regulates waiting lists for any complex procedure and schedules the procedures). Thus, no tests at all are offered for TBI diagnosis or TBD exclusion in the city.

The NTP recommended the municipal programme to waive tests before TPT prescription, or no prevention would ever be done. A technical note in this sense was issued by the municipal TB

programme (all technical notes available at [https://drive.google.com/drive/folders/103gUanldAnvycOerWelsB1aoM75NqgCA?usp=drive\\_link](https://drive.google.com/drive/folders/103gUanldAnvycOerWelsB1aoM75NqgCA?usp=drive_link)). TPT in Recife was maintained stable despite the stock out of TPT, 139 in Q2 and 140 in Q3. Half of them are contacts (70 and 69, respectively). MD are reluctant to start TPT without testing, as this has been the national recommendation for over 2 decades. The TB manager is trying to offer TST and CXR upon free demand (i.e., no need for regulation, as this is not a complex procedure), to expand the offer of CXR, and to speed the process. The NTP also recommended to have a local stock of 3HP in all clinics, to speed the process (currently, clients come back the next day to pick drugs that were distributed by the central pharmacy upon receiving notification).

2. Manaus: The city is located in the Amazonian region and with Rio de Janeiro, has the highest TB incidence rate in the country. The municipal programme is very active and had taken many initiatives for TPT scaling up even before the ExpandTPT program, and actions were scaled up with the program. For example, this was the first city to adopt 3HP. The ExpandTPT staff in Manaus, Dinah Cordeiro, is a former TB programme manager who works very closely with the current TB manager, Daniel Sacramento, also very collaborative with the project. Together, they have trained 17 people for TST injection and reading and have conducted 16 presential meetings/training sessions on TB prevention in the rural, indigenous and paediatric population, with a total of 310 attendees from 53 clinics in Q3. The iTB (information system) has been implemented, there are 1004 contacts registered, although very little TPT in their registry. The iTB system creates an alert to the health team if the evaluation is not completed and TPT started, if applicable, in 15 days. The NTP and ExpandTPT team made a few specific suggestions to improve the system. A new TB program is now in charge, Alexandre Inomata in Q4, also committed to strengthen the ExpandTPT activities (Daniel is on leave for a PhD).

Main NTP recommendations were: the need to follow the NTP technical note while PPD is out of stock, expand days offering TST in the clinics, with reading scheduled for 48h after injection, have a minimal stock of 3HP to start treatment before notification (those were overall NTP recommendations, as per the ExpandTPT training). A municipal technical note was released for these recommendations. Meetings with other stakeholders were planned to align these recommendations. The iTB team should have a meeting with the ExpandTPT national coordinator (not held yet) to discuss the graphs that will be generated in the local system. The number of TPT started in Manaus peaked in Q2 2023 (418), after launching of a 3HP campaign, but with PPD stockout, it fell to 267 in Q3 2023. In contacts, it peaked in Q3 2022 (258), and fell to 212 and 121 in Q2 and Q3 2023. There may be some delay in notifications, we will keep updating the data (in all cities).

3. Porto Alegre: This city (and the state), located in the extreme South - the richest region of the country, has one of the worst TB indicators in the country with regards to TB detection, TB treatment and TPT. It also has one of the highest incidence rates of TB/HIV. Despite being a pioneer city in the implementation of the Family Health Strategy, TB is still very centralised in reference services in this large city. Children and pregnant women with TB are treated in CRTB (Centro de Referência de TB) clinics, which work very well, TST (and other services such as CXR, specialised consultation) is offered on the day the client arrives, but this is only for those who can access the facility, as distances are long and traffic is heavy, resulting in high indirect costs for contacts (direct costs are not high, the city offers bus ticket incentives). CRTB are also responsible for training the primary care human resources (constantly changing). IGRA are not available. Chest X-rays are currently performed under the GESCON (equivalent to SISREG) waiting list system. Most CXR are performed in the central area of the city, and more peripheral areas are uncovered, contacts have to cross long distances to have the CXR made. Another clear bottleneck for TPT activities is the low number of CHW per family health team. While the recommendation is to have 6-10 CHW for each

team covering 1000 families, most visited clinics had 1 or 2. Turnaround of HCW, especially MD, is very high in primary care, a special challenge for training. Constant local training will be necessary for TPT and also TB and other priority diseases of primary care. However, only the virtual sessions by the ExpandTPT program were held until now.

Despite this adverse scenario, the city TB manager, Cristina Bettin, hired by the grantee to conduct the ExpandTPT activities in Porto Alegre, has committed to decentralise TB care, especially for contacts. With the ExpandTPT Program, one more full-time nurse and one part time doctor (10h weekly) were hired to the TB management department (by the city manager, not by the grantee). The surveillance team of the city is very active and interested in the ExpandTPT activities, and notification to the IL-TB system is decentralised. .

Progress in the internal ExpandTPT (surveys, mapping of clinics) has also been slower than in other cities. One of the alleged reasons was the "Winter Operation", as the city is located under the Tropic line, and common cold, influenza and other respiratory virus are prevalent during the winter months. There was also huge flooding that resulted in many deaths, due to climate changes. Besides the TB manager, the primary care city manager is also committed to the project. TPT initiation peaked in Q2 2023 (196), but dropped to 137 in Q3 2023. This was mainly due to TPT initiation among contacts (114 and 88, respectively). We will follow closely during the next quarter.

4. Rio de Janeiro: Rio de Janeiro city and Manaus alternate the highest TB incidence rate in the country. The RJ state TB program has recently received from the state assembly a substantial amount of money for TB elimination. The amount surpasses - by far - the NTP budget. Rio de Janeiro city, the capital of the state, is one of the priority cities for TB activities. The RJ municipal program is carrying out local presential training activities, although not as intensively as in Manaus and São Paulo, and unfortunately, has not included prevention in these activities. These sessions trained 40 HCW in Q3, which is an underachievement considering the number of HCW in this large city, and the large amount of money invested in the city. TPT initiated dropped from 862 in Q2 to 521 in Q3. Among them, 614 and 675 were in HHC, which may reflect our efforts on training but more likely reflect the increase in the number of TBD diagnosed in the city (personal communication). The peak was in Q3 2022, with 982 TPT initiated.

We have requested the RJ program to start in Q4 training sessions, in partnership with the grantee, specifically about TPT. The number of TB diagnosed and TPT initiated is steadily increasing since the beginning of these activities, which also were strengthened with the ExpandTPT program.

The **follow up** of these visits are reported in detail in Annex 3.

*Outcomes and Impact*

**3. Did activities result in the identification of persons with active TB disease and TB infection?**

- Did the activities result in TPT initiation and completion for those with TB infection?
- What interventions are being done to improve TPT initiation and completion?
- How are persons on TPT being supported and assessed for adherence and side effects?

Routine care is given to persons starting TPT. No blood tests are done, monthly visits are carried out by a nurse or a doctor. AE are managed as recommended by the NTP, no special actions are carried out in the scope of this project.

Adherence to 3HP has increased the rates of treatment completion in the country overall. Curiously, our data show a higher proportion of 3HP prescriptions (over all TPT prescriptions) in control cities than in intervention cities (since always, no change in trends, visually - except the very first quarter, with very small numbers and possibly large confidence intervals). We do not have historical data on TB detected. We will have more information as the registry books are more used in the clinics. We do not have a clear hypothesis to explain this finding, maybe the difference of experimental and control cities (control cities are smaller, less populated and have smaller numbers of TB cases and contacts).

**4. Describe how the numbers of persons across the cascades- those identified with active TB, TB infection, who initiated, and/or completed TPT- have changed in your evaluation population since the beginning of your activities (data from GMS tables)**

- How do these numbers compare to your control areas?

There was a sharp drop in TPT prescription in Q3 both in control and intervention cities. This may be partially explained by (1) delay in notification and (2) stock out of PPD.

Despite the lack of PPD, there was a slight increase in TPT prescription in Porto Alegre (although still a long way to go given the number of TB cases notified in the city) and in Rio de Janeiro since the beginning of the project. The numbers in Q2 were stable, which is a reasonable result given the shortage of PPD in Q2, with complete stock out by the end of May.



**5. In the next quarter, what will the project do differently to improve / maintain impact?**

The stock out of PPD was a major constraint, now solved. We need to train more HCW to conduct TST testing, interpretation and treatment. TST has started at the end of Q3 and is ongoing in Q4. We plan to train at least 300 HCW to perform injection and induration measurement.

In Q4, we will implement the CAD in the 5 clinics.

We will also conduct some OR, such as HCW satisfaction with the tools used in the project, training, knowledge acquired.

Finally, we are doing a closer follow up **onsite** on the use of the books (restricted to the clinics with a higher number of TB patients diagnosed monthly), as recommended during the visit by our officer Miranda Brouwer.

Cy-TB validation and acceptability are planned to start in 2024, as an add-on project.

**6. Describe any internal or external factors\* which may have influenced the identification of person with TB, TB infection, TPT initiation or TPT completion in your EP and CP (both positively or negatively). What changes were observed? How did they influence your results?**

\* Internal factors are related directly to project activities e.g. staff capacity and motivation; availability of commodities. External factors are more health systems related and can include political unrest, health care worker strikes, national stockouts of commodities, initiation or termination of service delivery activities by other organizations, changes in reporting units, and implementing new/improved diagnostics by others, etc.

Internal factors: some cities were more pro-active than others, with Manaus and São Paulo leading the multiplication of ExpandTPT activities.

External factors: still stock out of PPD. This has been corrected in September, we have started TST training and hope that this will finally result in an increase of the TPT prescription.

**7. Comment on how data quality was assessed during the reporting period.**

We will implement data quality control by 1. checking 20% of the registry book data against the REDCap platform; 2. comparing the index cases registered in the contact and in the TB disease registry books.

The REDCap platform also has some internal data control quality strategies. One of these strategies is double checking when transcribing information from the physical book to the electronic platform. This method helps identify and correct human errors that may occur during the filling process. Another strategy consists of implementing automation in the collection platform through form field validation rules. These rules can, for example, check the consistency of entered data, avoid duplicate entries or recognize values that are outside an acceptable range.

*Health Systems Strengthening*

<p><b>8. Describe how your project contributed to health systems strengthening.</b></p> <ul style="list-style-type: none"> <li>• Describe which building blocks your project contributed to and how? (Leadership and governance, service delivery, financing, workforce, medical products and technologies, information systems, and community engagement)</li> <li>• Describe any challenges related to implementing HSS activities and how these were mitigated.</li> </ul>
<p>Healthcare force and service delivery: we have trained over 7,000 HCW and CHW on identification of contacts and management according to the national guidelines. We are training nurses for TST application and induration measurement. Although the numbers of TPT did not raise, it did not fell as much as expected due to PPD shortage. We do hope that we will see an increase in testing and treatment in Q4.</p> <p>Information system: we have implemented an index case-based surveillance registry book and trained over 733 HCW to use a surveillance tool where all steps of the cascade are present. This has served as an example for the national reporting system and for the development of a TBI cascade of care information system in Manaus.</p> <p>Medical products, vaccines and technology: we have raised the key aspects for the OpenTB (open access CAD) installation. OpenTB should be installed Q4 and field data collected on Q12024. mTST used for TST application quality control,</p>

*Implementation Research*

<p><b>9. If your project is conducting implementation research, describe any activities related to implementation research this quarter and what you are planning for next quarter.</b></p>
<p>We mapped the clinics in the 5 cities and will report the feasibility of new test implementation and TPT scale up.</p> <p>For Q4, we are planning:</p> <ol style="list-style-type: none"> <li>1. mTST and TST training protocol satisfaction/acceptability survey</li> <li>2. acceptability and feasibility of the surveillance tool (registry book and platform analysis)</li> </ol> <p>For Q1/Q2 2024, we are planning:</p> <ol style="list-style-type: none"> <li>1. cost-effectiveness analyses of the tools used in this project (training, surveillance, CAD)</li> <li>2. impact of CAD on turnaround time of TPT initiation in 5 clinics</li> <li>3. client satisfaction survey</li> <li>4. Cy-TB: We have identified 2 partners for testing Cy_TB, Fundação de Medicina Tropical Dr. Heitor Vieira Dourado (Manaus, Amazonas) and Duque de Caxias TB reference clinic (metropolitan area of Rio de Janeiro). They have been validating Diaskin and C-TST against PPD and IGRA. If donation of Cy-TB is confirmed, we will submit an amendment for the Cy-TB test. We have requested additional funds from the Brazilian Government to this side project. An acceptability survey will also be conducted. This component may need an extension after Q12024.</li> </ol>

*Advocacy for Awareness, Sustainability, and Scale-Up*

**10. Describe your advocacy activities including your partner engagement (especially with the NTP and CCM), results sharing/dissemination and advocacy efforts during the quarter.**

- How has your project promoted and improved awareness among health care providers and the community on the importance of initiating and completing TPT ?

CAB activities remained intense along 2023Q3, second quarter of the program/study. The 14 CAB members from the 5 different cities where the program takes place participated in all training sessions to HCW and CHW carried along the period. Besides the training activities, CAB has remained in constant update and check-in by means of the dedicated WhatsApp group. Coordination Assistant has played a key role in keeping all members in the loop, reporting and engagement in all study related activities. Regular messaging by the Coordination team also provided feedback and updates to the research team and from the research team to the CAB members. CAB members have also regularly reported when participating in training sessions. Technical visits were carried out in 2023Q3 and had the participation of CAB members in Recife (13-July-2023), Manaus (20-July-2023) and in Rio de Janeiro (03-Aug-2023), on the last technical visits days. In the other two cities (São Paulo and Porto Alegre) there was no CAB participation during the technical visits, but the missions were reported during the respective State TB Forums in August 2023, when CAB members were present. ExpandTPT CAB members required to be included in all further program meetings and visits.

Beyond regular participation in training and regular updates, the highlights along the 2023Q3 months of the ExpandTPT CAB were:

**July:** revision and editing process for finalisation of the booklet dedicated to the CHW, which were consulted directly in June 2023 (previous quarter, please see previous report).

**August:** The revision process required several refinements and was finalised in early August. Printing of 3,000 copies was done in Porto Alegre, RS, Brazil, which offered lower price and compensated transportation to all five sites, cities. On 31-Aug-2023 a national Webinar carried by the ExpandTPT CAB members launched the *Guia das ACS para TPT* (“CHW’s Guide to TPT”) available at <https://redetb.org.br/guia-das-ac-s-para-tpt/> with the participation of the entire ExpandTPT Team and MoH, with Denise Arakaki (former NTP Manager) representing Fernanda Dockhorn (actual NTP Manager). A significant audience of 3,201 people, mostly CHW and TB managers from all over Brazil took part in the launch of the guide, which was made in the MoH’s webinars platform. With the national webinar carried in late August, the schedule proposed in May was fully accomplished.

**September:** Meetings held with CHW who participated in the in-person consultation in June 2023 in Manaus and Recife. Other cities will carry out these meetings in October (2023Q4).

*Women's Empowerment Activities*

**Please describe activities that you conducted to provide gender responsive services and/or empower women?**

The program is led/conducted by women (Project Director, Project Coordinator) having only women as Focal Points at each city. City TB Programs are also conducted by women. We have trained a majority of female HCW, we have hired a great majority of female to the project, some of them are M.Sc. or PhD candidates.

*Story from the Field*

**11. Provide a story from either persons who accessed services that you provided under this TB REACH grant or from program staff/ health care workers who worked under this grant about their experiences and how their lives have been changed due to your program? Please insert relevant photos if available and be sure to get permission from the persons profiled for use of their photo. Stop TB Partnership will use these stories and photos to promote grantee's work.**

See attached, in the communication activities (annex 4), some pictures.