

EVALUATION OF

DRUG RESISTANT
TUBERCULOSIS (DRTB)
INTERVENTION IN
BAGHDAD, IRAQ

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This publication was produced at the request of Médecins Sans Frontières (MSF) – Operational Centre Brussels (OCB) under the management of the Stockholm Evaluation Unit (SEU).

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DISCLAIMER

The authors' views expressed in this publication do not necessarily reflect the views of MSF and the SEU.

CONTENTS

- ACRONYMS 2
- EXECUTIVE SUMMARY..... 3
- INTRODUCTION 7
- EVALUATION METHODOLOGY 13
- FINDINGS 19
 - 1. RELEVANCE 19
 - 1.1. Needs identified, selected, and addressed: 19
 - 1.2. MSF response to the needs:..... 24
 - 1.3. Other needs identified: 31
 - 2. APPROPRIATENESS 32
 - 2.1. Appropriateness of project objectives: 32
 - 2.2. Appropriateness of project strategy: 34
 - 2.3. Stakeholders feedback on appropriateness:..... 36
 - 2.4. Strategy adaptation:..... 39
 - 2.5. Agile project management: 40
 - 3. CONNECTEDNESS 42
 - 3.1. Leveraging local resources: 43
 - 3.2. Partnership strategy: 46
 - 3.3. Continuity of support: 49
 - 4. EFFECTIVENESS 49
 - 4.1. Project achievements: 50
 - 4.2. Performance influencing factors: 58
 - 4.3. Opportunities and lessons learned: 61
 - 5. EFFICIENCY..... 61
 - 5.1. Human resources allocation..... 62
 - 5.2. Financial resources optimization..... 64
 - 5.3. Implementation efficiency 65
- CONCLUSIONS 67
- LESSONS LEARNED..... 69
- BIBLIOGRAPHY..... 70
- ANNEXES..... 71

ACRONYMS

ARO	Annual Review of Operations
BDQ	Bedaquiline
COVID-19	Coronavirus Disease
CRDC	Chest and Respiratory Disease Clinic
CSO	Civil Society Organisation
DOT	Direct Observation of Treatment
DR-TB	Drug-Resistant Tuberculosis
DLM	Delamanid
DST	Drug Susceptibility Testing
HIV	Human Immunodeficiency Virus
HR	Human Resources
IOM	International Organization for Migration
MDR-TB	Multidrug-Resistant Tuberculosis
MOH	Ministry of Health
MSF	Médecins Sans Frontières
NITRD	National Institute of Tuberculosis and Respiratory Diseases
NGO	Non-Governmental Organisation
NRL	National Reference Laboratory
NTI	National Tuberculosis Institute
NTP	National Tuberculosis Programme
PEC	Patient Education and Counselling
PHCC	Primary Health Care Centre
PMDT	Programmatic Management of Drug-resistant TB
RR-TB	Rifampicin-Resistant Tuberculosis
TB	Tuberculosis
SOP	Standard Operating Procedures
TBMU	Tuberculosis Management Unit
WHO	World Health Organization
XDR-TB	Extensively Drug-Resistant Tuberculosis

EXECUTIVE SUMMARY

BACKGROUND

Iraq witnessed a period of major instability for nearly two decades, resulting in phases of a complex humanitarian emergency. Due to central government challenges and slow recovery and growth, millions of Iraqis remain in need of humanitarian assistance to address the gap in access to basic amenities such as healthcare and clean water. MSF has been working in Iraq since 1991 and, until 2012, was supporting general and specialised healthcare. The first exploratory mission to Iraq to reintroduce MSF support took place in 2016 to explore needs and potential solutions, interventions, and projects. Potential projects emerged including the need to intervene in Sadr City in Baghdad (e.g., Drug Resistance Tuberculosis (DRTB), support reconstructive surgery, etc.), and in Mosul city. MSF decided to support an intervention focusing on DRTB in Baghdad. MSF aimed to support building the capacity of government entities responsible for delivering DRTB services. The project objectives were: (1) improving quality of DRTB case detection in MSF supported clinics in Sadr City in Baghdad, Iraq, and (2) improving the DRTB clinical care and management with quality assurance in Sadr City in Baghdad, Iraq. This report describes the evaluation of the DRTB Intervention implemented by MSF Operational Centre Brussels (OCB) in Baghdad, Iraq.

EVALUATION SCOPE, METHODOLOGY AND PURPOSE

This evaluation aimed to assess the relevance, appropriateness, effectiveness, and connectedness of MSF DRTB intervention in Baghdad (2018-2021); and identify the key lessons learnt. The evaluation scope focused on the direct project activities and results; while the project implementation geography was highly focused in Baghdad, Iraq, specifically the Sadr City. However, some indirect effects of the project including changes in the national policies were anticipated. The evaluation of the MSF DRTB project was designed to adopt a theory-based evaluation approach, driven by a good understanding of which theory of change was adopted by MSF to implement the project. A repository with available resources and data sets was compiled and analysed. The evaluators have also utilized the project medical monitoring data to assess the effectiveness of the project to achieve targets related to clinical-related outputs and objectives. The primary qualitative data were collected through engagement with key informants. A total of 23 individuals have participated in this evaluation. MSF will use the evaluation findings and report to reflect on and learn about MSF policies, strategy, and service delivery related to MSF DRTB Intervention.

EVALUATION FINDINGS

1. RELEVANCE

The evaluation found that MSF DRTB project components were very relevant to requirements and gaps in Sadr City, Baghdad. The project's importance stemmed from its focus on addressing quality-of-care gaps for DRTB patients while influencing relevant policies.

Needs identified, selected, and addressed:

- The intervention met beneficiaries' needs and priorities. Priorities of initiatives linked with institutions or partners. MSF and MoH/NTP strategies and policies aligned clearly.

MSF response to the needs:

- The intervention met needs and demands. Evaluators were positive about MSF's response. Changes and adaptations to the intervention in response to context changes helped MSF goals remain relevant until exit. The evaluation found that the project's initial challenging partnership environment affected its reception. This didn't affect the project's relevance.

2. APPROPRIATENESS

Appropriateness of project objectives:

- The evaluation confirmed the general objectives of the project were highly appropriate to the needs of the patients at the time, based on MSF's thorough review and understanding of the DRTB context.

Appropriateness of project strategy:

- MSF's change model to implement the DRTB project was plausible and helped achieve project goals and outcomes. Trends and changes in DRTB-related programme indicators were not available to assess the plausibility of MSF DRTB-specific interventions considering economic or demographic trends.

Stakeholders feedback on appropriateness:

- Stakeholders thought the policy-focused particular purpose was important to show the project's interventions were effective before they could be implemented in larger programmes.

Strategy adaptation:

- MSF's design modifications and changes were partially effective during the implementation life cycle. MSF's proactive plan management and use of different strategies helped keep the intervention relevant. In the context of the intervention, many project assumptions were incorrect.

Agile project management:

- Project strategies changed frequently. This may indicate a lack of a coherent change model or logical model at project's start. Slow adaptation of required design changes in the project's initial phase was also attributed to gaps in the project strategy's initial design. COVID-19 has disrupted service design and delivery.

3. CONNECTEDNESS

The evaluation findings indicating that the project was connected (satisfactory) to its context. The project has demonstrated clear values of effective partnership, interactions, interconnections, complementarity, and coherence in how the project was designed and implemented. The project was successful and effective in alignment and coherence with relevant DRTB interventions (or TB in general) implemented by other actors in the context.

Leveraging local resources:

- The project's interactions with local actors varies by sector and is influenced by Iraq's weak TB partnership environment. The project connected and built good working relationships with all DRTB-interested government entities. No evidence linked the project to governorate or district health authorities. Missed opportunities to connect with local private sector actors. Insufficient advocacy strategy limited the project team's ability to reach all relevant actors and stakeholders.

Partnership strategy:

- All project stakeholders gave positive feedback on the project's role and how the team connected with them. The project's theory of change and change strategy analysis showed that it worked well with partners (especially the government sector institutions). The project strengthened many of Sadr City's health system capacities to support DRTB interventions. Many of MSF DRTB's successes were due to the team's ability to collaborate with partners.

4. EFFECTIVENESS

The DRTB project achieved its goals partially, according to the evaluation. The project achieved targeted services, outputs, and patient outcomes. Without pre-set measurable objectives, it was impossible to objectively measure the project's effects.

Project achievements:

- The project's goals were vague and lacked details on how to achieve them. 83 patients have started the WHO-recommended oral DRTB regimen. High patient retention in the DRTB cohort can be attributed to transport support and food baskets to reduce the financial burden of treatment and encourage patients to attend follow-up appointments as advised by their healthcare providers. The project staff agreed that MSF's decentralised patient-centered care approach for DRTB treatment and management lacks clarity and coordination, which could lead to improper replication across governorates. There was insufficient evidence to show that MSF's intervention had unintended consequences.

Performance influencing factors:

- Staff capacity building, lab support, and personal support enabled goal achievement. Resistance to the project, unclear DRTB goals and objectives, and poor monitoring and reporting systems were challenges identified. During the intervention, project activities were adapted to address challenges and changing context. MSF's intervention directly influenced a national policy change in DRTB treatment in Iraq by providing technical advice and support to NTP in the transition to WHO-recommended oral DRTB treatment.

5. EFFICIENCY

The evaluation findings showed that the human, material and financial resources invested in the project were adequate and mostly sufficient for reaching the initially planned results, which indicate that the project was efficient. While there were delays in the project's initial phase, the project managed to deliver on some of the expected outputs.

Human resources allocation:

- The amount of human and financial resources invested or expected to be invested in the project was limited but sufficient.

Financial resources optimization:

- The scope of the DRTB project there was no complex components or interventions more than the clinically oriented interventions. This also contributed to low level of resources required for the project.

Implementation efficiency:

- Despite the early delays the project was completed on schedule. One of the main advantages in the project was the fact that MSF did not establish a separate clinic, but rather it has provided support to existing MoH DRTB clinic. This has contributed to efficiency of the project implementation.

LESSONS LEARNED

1. It is essential to conduct a comprehensive needs-assessment before the commencement of the project targeting advocacy efforts.
2. With support from central units, the MSF mission should devote more time and attention to new catalytic projects during its initial stage, elaborating the advocacy and change strategy with mitigation measures.
3. The early engagement of MSF mission leadership to support the introduction and initiation of projects is inevitable. The initiation phase should be considered an opportunity for MSF leadership to communicate a clear vision of what and how MSF consider changing the problems.
4. For projects that focus on tuberculosis specifically, the project team needs to start with more comprehensive support to TB/ DRTB in a new catalyst project.
5. Project success towards its objectives is measured through accumulated achievements; however, the results should be measured against clear and measurable outcomes.

INTRODUCTION

1. CONTEXT

Iraq is in Western Asia and is one of the largest countries in the Middle East, with an estimated population of 41 million in 2020. Baghdad is the capital and the largest city with an estimated size of 9.4 million¹. The country has been going through a period of major political instability for nearly two decades, which has resulted in violence, movement of population and phases of a complex humanitarian emergency. As a multi-ethnic and multi-confessional country, Iraq is a federal parliamentary republic. Iraq's social and political landscape has drastically changed after major and iterative political conflicts, the October 2019 social uprising that led to the formation of a new government, and the COVID-19-induced health and economic crises. These developments have exacerbated long-standing tensions, feeding public distrust in the state and tribal violence in the south. This situation has detrimentally affected minority communities, especially in the Islamic State of Iraq and Syria (ISIS)-affected areas, creating openings for ISIS remnants to step up attacks and contributing to a massive internal displacement of over one million persons². The formation of a new government in May 2020 ended months of political deadlock, but fiscal pressures, political rivalries, and limited institutional capacity present serious hurdles to reforms that remain critical to long-term stability in Iraq. Iraq's humanitarian condition continued to be uncertain and grave. Millions of people have been displaced due to conflict, affecting societal cohesion, basic services, livelihoods, and security. Due to central government challenges and slow recovery and growth, millions of Iraqis remain in need of humanitarian assistance. Many individuals, especially the most disadvantaged, can't independently provide for their fundamental requirements. They lack access to basic amenities like health care, clean water, sanitation, education, and few job prospects. As crucial infrastructure and services were rebuilt, vulnerable communities turn to negative coping mechanisms such as debt accumulation and hazardous behaviours, further weakening resilience and increasing the need for humanitarian aid.

MSF has been working in Iraq since 1991, mainly supporting general and specialised healthcare, services for expectant and new mothers, treatment for chronic diseases, surgery, post-operative care and rehabilitation for trauma patients, mental health support and health education activities. MSF OCB supported a hospital in Sadr City from 2003-to 2004 and the Imam Ali hospital from 2009 to 2012. This included donations of materials and medicines and training activities for nurses and doctors. In 2017, MSF OCB re-started the support to the Emergency Room (ER) in Imam Ali hospital, focusing on improving the flow of patients and implementing an effective triage system. The first exploratory mission to Iraq to reintroduce the MSF support took place in 2016 to explore needs and potential solutions, interventions, and projects to support the health sector. Later in 2017, MSF conducted the first relevant exploration mission, focusing more on DRTB services. Multiple potentials emerged from the mission, including the need for interventions in Sadr City in Baghdad (e.g., Drug Resistance Tuberculosis (DRTB), support reconstructive surgery, etc.), and in Mosul city. MSF decided to support an intervention focusing on DRTB in Baghdad. This report describes the evaluation of the DRTB Intervention implemented by MSF Operational Centre Brussels (OCB) in Baghdad.

¹ World Meter (2022). Retrieved from <https://www.worldometers.info/world-population/iraq-population/>.

² Middle East Institute (2021). Once again, Iraq is at a crossroads. Retrieved from <https://www.mei.edu/publications/once-again-iraq-crossroads>.

2. TB AND DRTB IN IRAQ CONTEXT

The burden of tuberculosis (TB) in Iraq in 2019 was estimated by the World Health Organization (WHO) at 16,000 incident cases (including relapses), with an incidence of 41 new TB cases per 100,000 population³. The fight against TB has been organized in the framework of a National Tuberculosis Program (NTP) since early 1989. Iraq continued to face multiple economic and human development challenges, including poverty, malnutrition, and insecurity. Such conditions resulted in fewer resources for social sectors, including health. The TB program review in 2018/2019 indicated that resources for lab DRTB diagnosis and management (Line Probe Assay, Drug Sensitivity Testing (DST), GeneXpert testing, etc.) were not available on a stable basis⁴. Many trained and experienced health staff left the country. There was a need to increase the number of notified TB cases, improve the quality of TB diagnosis, and enhance the bacteriological confirmation in patients diagnosed with TB (including DRTB). Only 20% of estimated DRTB cases were identified in 2018. As compared to detecting 90% of the estimated DRTB cases targeted by the NTP in its strategic plan⁵.

Treatment for DRTB is normally associated with poor outcomes from patient's perspective due to the treatment long duration (18-24 months) and serious side effects. The NTP in Iraq was adopting conventional regimen based on Amikacin/Levo by the time when the DRTB project started. However, while WHO recommended a shorter treatment regimen (9-12 months) in 2016, the shorter regimen was not rolled out yet in Iraq (until later in 2020). The standard of care consisted of at least 20 months of a long and toxic regimen with old drugs, some of which with unproven efficacy.

The MSF exploratory mission in 2017 highlighted the difficulties in implementing new technology and treatment regimens⁶. In 2016, WHO has changed the recommended criteria of TB treatment outcomes, as well as the definitions of pre-Extremely Drug Resistant (XDR) and XDRTB, to reflect the DRTB treatment regimen's shorter duration. In addition to the difficulties associated with a lack of diagnostics and medications, patients with TB, particularly those with DRTB, frequently lack sufficient psychological support and treatment adherence counseling. Even though DRTB treatment is long and unpleasant, and adverse medication responses are prevalent, many patients with DRTB are forced to go through it alone and without much support.

3. PROJECT DESCRIPTION & BACKGROUND

The 2017 MSF's project exploratory missions referred to the potential scope of the TB/DRTB based on observations and data gathered. MSF aimed at supporting diagnostic improvement, treatment improvement notably through the introduction of new medicines and supporting an enhanced model of care for DRTB patients (including progressive decentralization of DRTB treatment and management). There was a need for program level data to support its implementation in the field and to build evidence on its effectiveness (or otherwise lack of effectiveness) under operational research

³ WHO (2020). Global TB report.

⁴ NTP (2019). TB Program Review report.

⁵ NTP MoH (2020). TB National Strategic Plan 2020-2024.

⁶ MSF (2017). Iraq – Baghdad Exploratory mission report.

conditions. As such, the operational research was seen as an opening door to improve DRTB treatment in Iraq⁷. In addition, the global landscape for detecting and treating DRTB has shifted after 2015. As of 2020, the WHO Consolidated Tuberculosis Guidelines advocate Bedaquiline (BDQ) instead of injectable drugs in 9–12-month standardized regimens, as well as alternative BDQ-based shorter regimens. Molecular tests for TB have replaced sputum smear microscopy, with cartridge-based nucleic acid amplification testing becoming increasingly widespread⁸.

PROJECT OBJECTIVES AND OUTCOMES

MSF aimed to support building the capacity of government entities responsible for delivering DRTB services. While MSF has decided to intervene in response to challenges related to DRTB, the nature of engagement remained unclear at an early stage of the 'project'⁹. While there were some clarities about the project's scope, internal documents review and interviews for this evaluation indicated that MSF staff recruited to implement and coordinate the intervention might not have been clear about the intervention identity and its scope at the early stage of the implementation. There was no official project title in many of the internal documents, and many of these refer to it as "DRTB intervention". One summary statement made by a project staff "*the main activity is the technical support of NTP by expat TB MD and TB drug donation*".

The project identity might have been mixed sometimes with the scope of its parts. In particular, one component of the project was operational research with the title "Research on the effectiveness and safety of an injectable-free shorter regimen for Rifampicin resistant and Multidrug-Resistant Tuberculosis treatment in Baghdad Governorate, Iraq". By 2019, and upon more development of thinking about the project, the project was given an official title as "Improvement of DRTB management in Iraq and implementing an injectable-free shorter regimen for Rifampicin resistant Multidrug-Resistant Tuberculosis treatment in Baghdad Governorate, IRAQ"¹⁰.

The evaluation team worked with MSF internal stakeholders through the Theory of Change (ToC) development process to establish a mutual understanding about the description of the project (scope, objectives, and logical model). The MSF DRTB project in Baghdad aimed to improve outcomes of patients with DRTB within targeted areas/facilities within Sadr City, working in collaboration with the national TB programme and Sadr Medica City. The MSF meant for the project to be catalytic in nature with a goal to influence national policies and provide effective model of care for DRTB patients. However, this was not clear for all stakeholders engaged in the project.

The ToC Validation Workshop, facilitated by the evaluators, confirmed these as the set of objectives and outcomes that shaped the scope of the project:

1. Improving quality of DRTB case detection in MSF supported clinics in Sadr City in Baghdad, Iraq.
2. Improving the DRTB clinical care and management with quality assurance in Sadr City in Baghdad, Iraq.

⁷ MSF (2018). TB project – Action Plan.

⁸ WHO (2020). TB consolidated guidelines for TB management.

⁹ MSF (2018). DRTB intervention Project Narrative Iraq.

¹⁰ MSF (2019). Draft document – Programme of Collaboration between NTP and MSF.

In addition, the following project outcomes were identified:

1. TB/DR TB Increase early case detection strengthened.
2. Programmatic and clinical care and management of DRTB strengthen.
3. Capacity built on new WHO guideline, new DRTB drugs and pharmacovigilance carried out.
4. Patient support and education enhanced.

The ToC workshop confirmed that the project's objectives have changed during the project life cycle in response to changes in the context. However, the two objectives highlighted above remain the core objective 'areas' for the project.

THE PROJECT PILLARS

The evaluators understand that the project has evolved through different stages, with changes in nature and significance of the pillars that compose the project's scope (as intended at the initial phase). The following pillars remained essential and core components of the project through its life cycle:

- **Laboratory:** support DRTB diagnostic capacity and quality.
- **Support DRTB case detection:** enhance contact screening (household contacts) and support sputum collection activities.
- **Clinical management:** Support DRTB clinical management at defined health facilities.
- **Patient support and improvement of adherence:** supporting health promotion and building capacity for patient care.
- **Operational research:** generation of local evidence to support adoption of shorter treatment regimens for DRTB.
- **Infection prevention and control (IPC):** enhance IPC practices in health facilities supported through the project.
- **Capacity building:** this was crosscutting component in different project areas.

The project was focusing on Sadr City and targeting three locations: (1) Medical City (MC) where the National TB institute (NTI) is based, that runs the National TB Program (NTP); (2) The Chest and Respiratory Clinic (CRC); and (3) the Tuberculosis Medical Unit (TBMU) responsible for Sadr City district.

LOGICAL MODEL

The logic model conceptually should describe the following key program or project components as sub-set. It is important to note that there was no clear separate log frame and chronogram for the DRTB project, which was put together with the ER project in 2018 and 2019. A clear log frame for the project objectives was essential to support the project team in aligning the objectives with the activities. In addition, the project documents indicated that the DRTB project had been characterized by changing logical models through its life cycle.

The following Figure 1 explains a holistic logical model as conceptualized by the evaluators and validated during the ToC workshop.

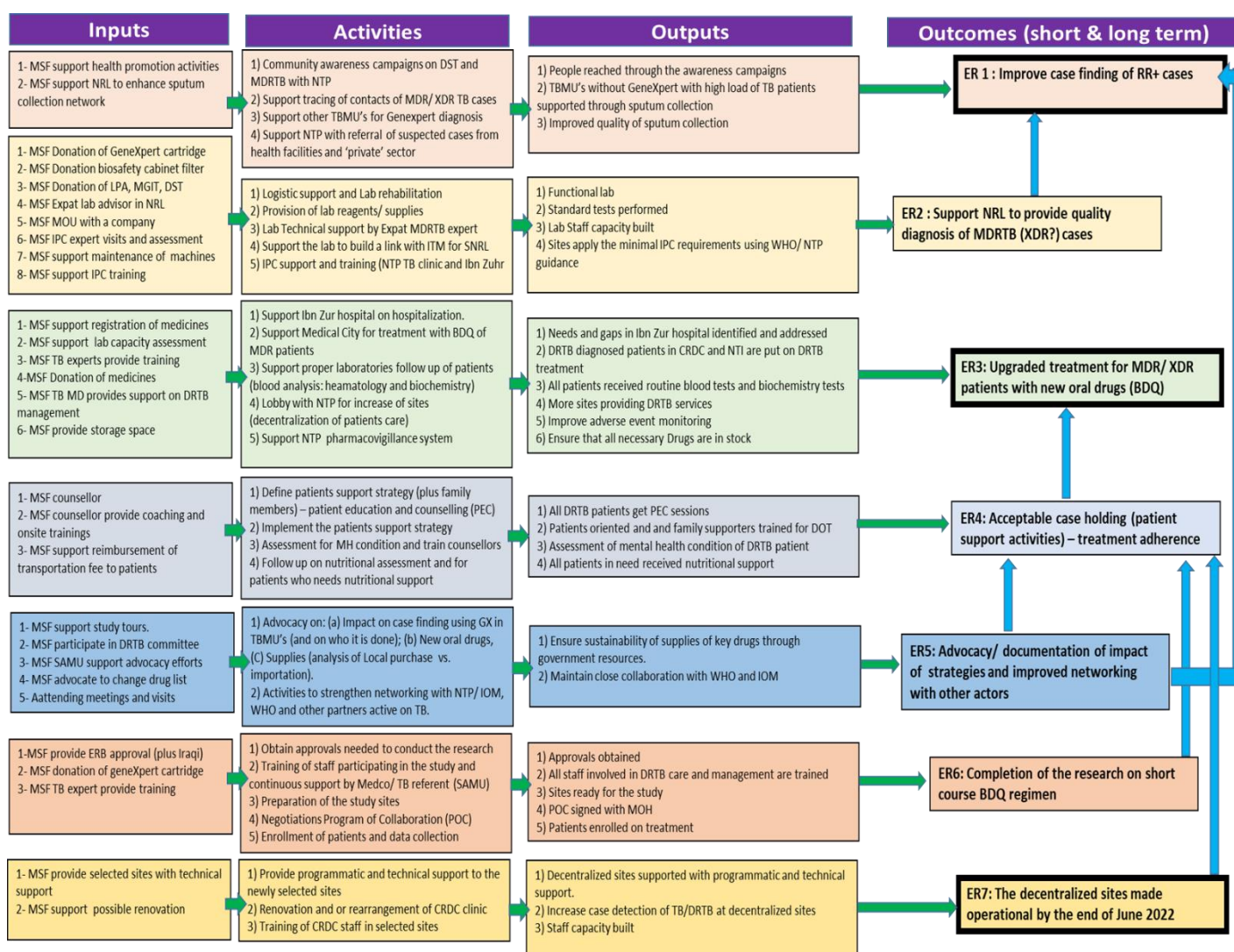


Figure 1. DRTB Project Logic Framework (See Annex 3).

THE PROJECT LIFE CYCLE

The project documents indicated that the MSF team conducted the first exploratory mission to establish the potential options for MSF interventions in 2017¹¹. The evaluators identified three stages of this project:

1. **Inception Stage:** it was the initial stage of the project which continued between late 2017, early 2018 until the end of 2019.
2. **Maturity Stage:** this was the stage during which the project started to harvest results associated with its activities. This phase continued through 2020.
3. **Exit Stage:** this stage during which MSF started to explore a decision to adopt an exit strategy and to close the project. This stage continued through 2021 until end of June 2022.

The distinction between these three phases was important for this evaluation, as the change process was different through each of these phases which provide better analysis perspective.

¹¹ MSF (2018). DRTB intervention Project Narrative Iraq.

The operational decision to close the DRTB project was made late in 2020. Beside considerations given to results achieved regarding policy changes achieved, the closure was also affected by the financial constraints and availability of funding to support the project. The project team and the coordination team proposed a different approach to address the decision. It was decided to: (1) scale-down the lab support, (2) focus on the DRTB technical support with minimal HR, so that the NTP's transition to oral regimen can be supported and the exit can be done smoothly keeping the good relationship and trust that has been built.

CHALLENGES TO DEPLOY AND IMPLEMENT THE INTERVENTIONS OF THE PROJECT

As part of the scoping mission, MSF decided already to deploy an intervention that aimed at improving the NTP capacity to diagnose and manage DRTB in Rusafa district in Sadr City (further details in subsequent sections). However, the deployment of the intervention and design has to address some challenges within the context at 2017/2018; these include:

- The new WHO recommendations include full oral regimens only for long term treatment; for short-course regimens, the WHO encouraged countries to do more “operational research (OR)” to have more scientific data. However, the culture of clinical trials for such kinds of drugs needs to be addressed sensitively¹².
- NTP, Ministry of Health (MoH) authorities, Iraqi Ethical Review Board (ERB), MoH Health workers were concerned of possible adverse reactions when using BDQ. There was misinformation regarding the safety for the use of BDQ. In addition, the national authorities did not see the needs to make programmatic changes towards new ideas¹³.
- The health care delivery system in Iraq is a hospital-oriented and centralized model (as opposed to primary health care – PHC). Decentralization in the health care delivery system has been addressed to a certain degree in national legislation; however, implementing these mechanisms presents major challenges.¹⁴
- The challenge of the overall low case detection of DRTB patients remained to be addressed. Although all the detected DRTB cases were treated, they only account for a small proportion of the estimated cases among notified TB patients. The feasibility of the intervention and its rationale needed more attention from MSF¹⁵.

¹² MSF (2018). Internal project overview.

¹³ MSF (2018). Internal project overview.

¹⁴ MSF (2019). TB project – Action Plan.

¹⁵ MSF (2018). Internal project overview.

EVALUATION METHODOLOGY

This evaluation was commissioned by MSF OCB and managed by MSF-SEU. It aimed to assess the relevance, appropriateness, effectiveness, and connectedness of the DRTBC project (note: for the purpose of the evaluation and this report, the evaluator refers to the MSF DRTB intervention as the DRTBC project) in Baghdad (2018-2021), and identify the key lessons learnt. As such, this evaluation's design aimed to support a process to generate evidence that supports the learning process.

1. EVALUATION SCOPE

The evaluation period covered the project from its initiation in 2018 until the end of 2021. The project was extended until June 2022; however, the evaluation does not cover the period between January to June 2022 (extension period). The evaluation scope focused on the direct project activities and results. The project geography was highly focused on implementing the interventions in Baghdad, Iraq, specifically the Sadr City. However, some indirect effects of the project include changes in the national policies, which go beyond the project geography. The evaluators will report, where relevant, on these indirect results associated with the project.

The evaluator focused on the following 'TB technical' areas while performing the evaluation:

- Describe and assess the national DRTB surveillance and vital registration systems, with particular attention to their capacity to measure the level of and trends in DRTB disease burden and services.
- Review current issues impacting quality of care in DRTB, including within the areas of patient-centeredness, safety, and effectiveness.

2. EVALUATION OBJECTIVES

The evaluation aims to answer the following Evaluation Questions (EQs):

- **EQ 1:** How relevant has the MSF DRTB Intervention in Baghdad been?
- **EQ 2:** To what extent has the DRTB Intervention in Baghdad been appropriate to the TB needs and Iraqi context?
- **EQ 3:** How connected has the MSF DRTB intervention been in the context?
- **EQ 4:** To what extent has the MSF DRTB intervention been effective in achieving its objectives?

A modification was made during the inception phase by adding an evaluation question that focuses on the DRTB intervention's efficiency. The evaluation team proposes to add efficiency as one of the evaluation criteria besides these four criteria. The following evaluation question was added to the evaluation framework:

- **EQ 5:** How well and efficient the MSF DRTB intervention being implemented and adapted as needed?

The evaluators ensure that conclusions from the evaluation will provide insights on:

- Lessons learned on enhancing the chance that goals and objectives of such kind of project are achieved effectively.
- What components of such projects work well/do not work and why.
- Identifying areas that need special attention to provide the best service possible to targeted groups.

3. EVALUATION PURPOSE

The evaluation aimed primarily at contributing to MSF-OCB conversations about strategic and programmatic approaches and practices most appropriate in Iraq, in general, and concerning TB. This evaluation report provides evidence-based recommendations for future applications in similar projects or contexts. MSF will use the evaluation findings and report to reflect on and learn about MSF policies, strategy, and service delivery related to MSF DRTB Intervention. For MSF, working in Iraq was not new; however, the formulation of entry points, development of engagement strategy and adoption of the right approach for projects (such as MSF DRTB intervention) might require an informed approach. In addition, the evaluation design meant to be participatory in nature and driven by questions that support MSF at policy and operational levels to generate lessons learned. The evaluation was an opportunity to create awareness around the evaluation of such a project through a collaborative evaluation design (i.e., using a theory-based design).

4. EVALUATION METHODOLOGY

FRAMEWORK

1. Theory of change development and validation

The evaluation of the MSF DRTB project was designed to adopt a theory-based evaluation approach, driven by a good understanding of which ToC was adopted by MSF to implement the project. As part of the ToC development, the evaluators initiated a comprehensive desk review that aimed at developing a better understanding of the project. The output of the desk review fed into the development of the project ToC. In addition to the theory-based evaluation approach, the evaluators adopted a resource tracking approach to evaluate the efficiency of the project.

It is important to note that the ToC for MSF DRTB project was not developed before or during the project implementation. The ToC has unfolded through a facilitated process of open inquiry and dialogue facilitated by the evaluators. A version of program theory called the action model/change model schema was adopted for this purpose. The schema goes beyond assessing why the project works (the change model) by also assessing how to do it (the action model). The structure and components of the change model and action model schema and their relationships are discussed below:

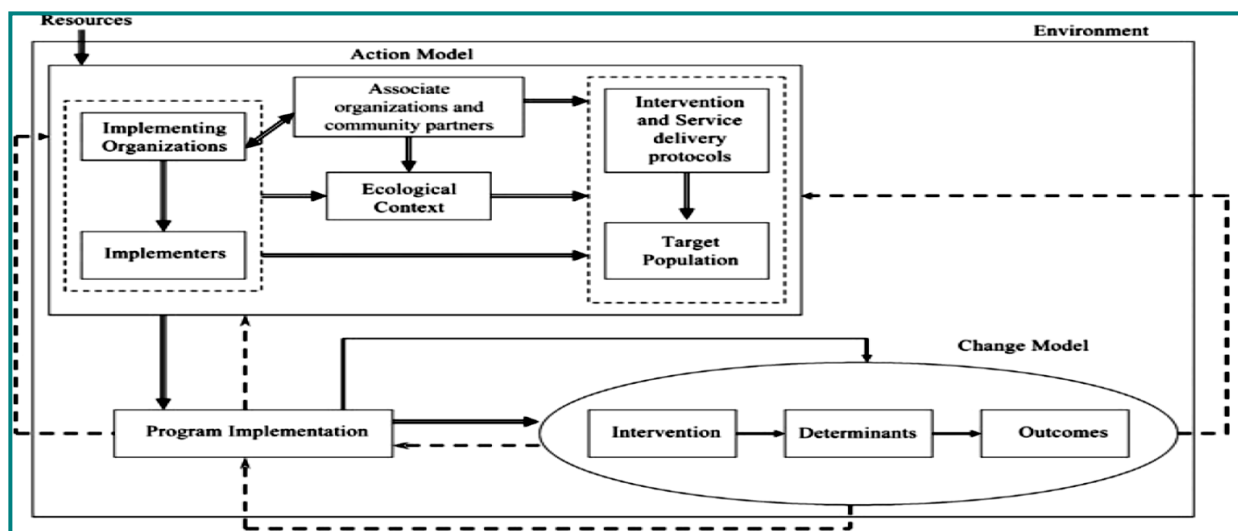


Figure 2. Action Model/Change Model Schema¹⁶ (See Annex 4 for the methodology adopted for this component).

2. Resource tracking

This approach was proposed by the evaluators as part of the evaluation framework in which the results chain of MSF DRTB intervention will be analysed and assessed (inputs to process, and from outputs to outcomes). The focus in this analysis was on the MSF DRTB project in the Iraq context, while considering the overall programmatic landscape to analyse what is the holistic outlook of resources mobilized by MSF (including aspects related to global MSF expertise in this area). It has enabled the evaluators to establish linkages between the national TB plans and the MSF DRTB intervention workplan. The evaluators aimed at assessing any observed changes in financial resources and prioritization between activities, which can enable the evaluators to link the financial resources and grant inputs to outputs and the immediate outcomes observed.

DATA COLLECTION

This section provides details on how the evaluators approached the data collection needed to assess the indicators and project attributes associated with different evaluation questions. The evaluation adopted a participatory approach in design, analysis, and judgement. While the evaluators maintained an independent status, they ensured that the evaluation was done in partnership with the key stakeholders and players at MSF and different levels, with emphasis on building trust in the process and confidence in the results.

1. Review of project documents

As far as possible, existing data and analyses were utilized for this evaluation. A repository with available resources and data sets was compiled, with inputs from MSF and stakeholders. Inputs and activity data were highly relevant given the focus of the evaluation on process and implementation. Please refer to the list of documents reviewed and references in the Annexes.

¹⁶ Chen, H.T. (2005). Practical program evaluation: Assessing and improving planning, implementation, and effectiveness.

2. Routinely collected medical data

The evaluators utilized the project medical monitoring data to assess the effectiveness of the project to achieve targets related to clinical-related outputs and objectives. Most of the collected data were quantitative, including data captured throughout the patient clinical pathway to obtain the services. Data on patients' demography, diagnosis history, type of diagnostics and confirmation tests used, TB categorization and site, treatment initiation history, type and length, and the treatment outcomes. Other data included retention in care and treatment and relevant data on patient support.

3. Key Informants interviews

The evaluators mapped country-level stakeholders in consultation with MSF and developed an engagement plan before establishing the evaluation. That included working with SEU and the Evaluation Consultative Group to identify all primary and secondary stakeholders to the project (within MSF or with partner organizations). The primary qualitative data were collected through engagement with key informants through a series of interviews to explore issues in-depth. A total of 23 individuals (representing 12 units or entities) have participated in this evaluation.

Table 1. Evaluation stakeholders mapping

STAKEHOLDERS	(POTENTIAL) ROLE IN THE EVALUATION
MSF central and regional stakeholders	Units or sections supporting the related functions were expected to provide inputs as relevant. The evaluators interacted with MSF support staff to gather information on their interactions with the project team and Iraq country office. A total of eight experts interviewed or contributed to the evaluation process.
MSF Mission	This group was the main source of reference regarding the history and current implementation records and data. That has mainly covered aspects related to coordination, planning, and monitoring of the action plans. These stakeholders include heads of mission, country representatives, medical coordinators, medical doctors, and field coordinators, among other relevant staff. A total of seven experts interviewed or contributed to the evaluation process.
Iraq NTP	The NTP, as government body, represents the interests of end beneficiaries of the MSF DRTB intervention and wider TB program. In that sense, their participation in the evaluation process is essential. Not only for data collection but to enhance accountability as well. A total of five experts interviewed or contributed to the evaluation process.
Relevant donors to TB program in Iraq	The appropriate and relevant representation from these donor entities is essential and important. A total of one expert interviewed or contributed to the evaluation process.
Civil society organization	It is important to ensure the community perspectives will be heard and considered during the evaluation process. A total of two experts interviewed or contributed to the evaluation process.

That was translated into a list of people to be interviewed during the data collection phase (please refer to Annex 4 for more details).

LIMITATIONS

Below is the evaluators' assessment on the main risk areas and how they were addressed.

One of the challenges the evaluators encountered was the disengagement of some identified stakeholders during the data collection process, which has posed some limitations in retrieving further

information on the project. To address this challenge, the evaluators worked with the SEU Evaluation manager to address these disengagements proactively through different approaches, which was an effective strategy. In addition, as there were many stakeholders, especially within the MSF teams in Iraq, the evaluators, together with the evaluation manager, aimed to ensure minimum representation of stakeholders during different project periods.

The evaluators intended to apply the resource tracking method as part of the evaluation approach to assess operational efficiency. That was not materialized during the evaluation process due to challenges in obtaining the required data. This change was discussed with SEU Evaluation Manager, and it was agreed to drop it. Applying the technique might face some challenges in many projects, especially since the MSF DRTB Intervention project shared resources with other projects in the country from operational perspectives. This reality affected the evaluators' ability to obtain the required data for such an approach or at the required quality. This approach was not applied or utilized fully to analyze the project's efficiency as planned during the evaluation planning stage. However, this is not considered a significant gap in the evaluation design as it is meant to be a complementary approach.

One of the limitations faced by the evaluators is a lack of data provided by the project that allows us to attribute contributions from both parties. The data set used for this evaluation is entirely from the NTP to demonstrate the project results at national level. Because the project lacked a proper M&E structure from the start, it was impossible to separate the achievements attributed solely to Sadr City from national data. However, the evaluators could match the project's role with timelines between 2019 and 2021, which was sufficient to measure its results.

ETHICAL CONSIDERATIONS

The evaluators integrated the following ethical considerations in the methodological approach.

The evaluators were committed to conducting this evaluation to be in line with the MSF evaluation ethics or any other reference standards. The evaluators uphold their commitment to adhere to MSF ethical guideline, evaluation guidelines, norms, and standards. It was proposed that MSF teams review any modifications to the protocols or reportable new information about the evaluation when necessary.

All information providers were informed by the evaluation's purpose and will be asked to participate in the evaluation, providing information and or filling any data collection tool voluntarily.

All participants were assured that there will be no negative consequences if they choose not to participate.

All interviews were introduced with the consent note. The details of the consent note guarantee that every respondent understands that participation was voluntary, and that they were free to withdraw participation at any time, even after consent was granted. The note has information on the evaluation objectives and design with great emphasis on confidentiality.

Participants' privacy and confidentiality were strictly observed, and all evaluation-associated risks were be minimized. This was particularly observed with regard to keeping the anonymity of patients identify (concerning the quantitative clinical data). The project team collaborated with the evaluators to guarantee that the patients' files and information do not contain any identifiable information about the patients (i.e. encoded data).

DATA ANALYSIS

The data collected were both quantitative and qualitative. The analysis through Microsoft Excel produced descriptive and inferential statistics (point estimates) to qualify quantity performance against the objectives and outcomes of the project. For clinical data, the analyses were built at the case level using clinical data set and were later consolidated, assessing the entire cohort. The programmatic data were analyzed to feed into the evaluation indicators relevant to each evaluation question. Qualitative data were analyzed using manual coding and labelling to identify different themes and topics, which were then grouped and matched to support analysis under each evaluation question.

The literature review and data triangulation utilized a participatory approach and was complemented by key informant interviews. The evaluator focused on triangulating the findings through secondary data analysis of quantitative data sources (including cross-checking the data from different sources).

FINDINGS

The evaluators synthesized the findings under five criteria for this evaluation. These include relevance, appropriateness, connectedness, effectiveness, and efficiency. Evidence was gathered to support findings, judgement, and conclusions about the evaluation questions associated with these criteria. In addition, the evaluators looked at the barriers and enablers that were making the difference between successful and disappointing intervention implementation and results. The evaluators used an evaluation rubric corresponding to different dimensions within the specific criterion to judge the project on each criterion. Please refer to Annex 5 of this report for further details.

Under each criterion, this section provides the definition adopted for the criterion, brief and high-level findings on the macro evaluation question relevant to the criterion, followed by a summary and detailed findings under each of the micro evaluation's questions (sub-set of the macro question). A summary of conclusions is highlighted in the next section of the report.

1. RELEVANCE

Definition:

Relevance is defined as “the MSF DRTB project, including its delivery, was aligned to the respective stakeholder needs, policies, and priorities; and it measures and reports on the sensitivity of the response to the demographics across implementation sites in Sadr City.”

Main Evaluation Question #1:

How relevant has the MSF DRTB project in Bagdad been?

The evaluation found that MSF DRTB project components were highly relevant (highly satisfactory) to the needs and gaps identified by MSF in the context and implementation geography in Sadr City, Baghdad. The relevance of the project derived from its emphasis on addressing gaps in quality of care for DRTB patients while focusing on changing relevant policies to achieve this goal.

1.1. NEEDS IDENTIFIED, SELECTED, AND ADDRESSED:

EQ. 1.1. What needs did the intervention aim to address and how were they identified and selected?

Summary of findings:

- *The intervention succeeded to address the beneficiaries' needs and priorities and a meaningful manner, despite some of the gaps as will be highlighted.*
- *The priorities targeted by the interventions were aligned to the priorities of involved institutions or partners (namely MoH/ NTP and service delivery units in Sadr City).*
- *There was a clear alignment between MSF and MoH/ NTP strategies and policies.*

According to MOH and WHO reports, TB has been a major public health issue in Iraq. The national TB control program was started in 1989 and the (directly observed therapy) DOTS was introduced in 1998 which gradually expanded until in 2008 it covered all 18 provinces. By 2018 Iraq was among the seven countries of the Eastern Mediterranean region with high prevalence of TB accounting for 3% of cases in the region. As of 2018, incidence of TB in Iraq was estimated at 42/100.000 population¹⁷, prevalence of RR-TB forms was estimated at 6.1% among new and 24% among retreatment cases, while MDR at 1.1% among new and 19% among retreatment cases¹⁸, with more than 400 DRTB incident cases estimated each year¹⁹. Case detection rate was extremely low in 2018 and was estimated at 53% for DSTB and much lower for DRTB, with important treatment gaps, especially for resistant forms. The approximate distribution was 44% pulmonary TB of which 5% was sputum negative, with 56% of all the cases were extra pulmonary TB.²⁰

“The programmatic management of drug-resistant TB (PMDT) is one of the main components of any successful program to control TB. The programme for managing drug-resistant TB was developed by establishing a unit with the National Tuberculosis Program (NTP) in 2014, but it was disorganized. This unit in charge of the development, implementation and monitoring of PMDT activities in Iraq.”

Ministry of Health, TB Program

In 2015, a comprehensive review of the DRTB surveillance system was conducted, and detection and early detection data were being gathered. The program used the traditional, personalized therapy protocol which was centralized. Then NTP started a decentralized approach²¹; however, after the upheaval caused by ISIS in Iraq, the program returned to the centralized approach. Lost to follow up was quite prevalent and NTP's staff's experience was poor²².

¹⁷ WHO (2019). Global TB report data.

¹⁸ NTP (2016). DRS National Survey 2013-2015.

¹⁹ NTP (2019). TB Program Review report.

²⁰ MSF (2018). DRTB intervention Project Narrative Iraq.

²¹ As opposed to centralized care which has been provided solely by specialist centres for the treatment of DRTB, either in the treatment centre as an inpatient and/or outpatient.

²² Interview with NTP program management staff.

By the time when MSF conducted its first exploratory missions in 2017 and 2018, there was no specific national guide on PMDT developed by NTP, and the practice was not in line with the WHO recommendations for management of drug resistance TB²³. By that time, NTP has not yet formally introduced the new WHO-recommended treatment regimens for DRTB. DS-TB was managed peripherally in TB management units and primary health care facilities under each governorate coordination unit. DRTB treatment and follow-up, on the other hand, were centralized at the medical city's specialized chest and respiratory illness centre. This resulted in an increased transportation costs to patients monthly throughout the treatment duration, as well as delayed treatment initiation and discontinuation due to security concerns or financial constraints. In addition, the diagnostic procedures were mostly conventional microscopy (as no fluorescent microscopes were available in some TB accredited facilities at Primary Health Care) and GeneXpert was not yet used as a first line diagnostic tool^{24 25}. The provision of Xpert MTB/RIF testing was provided at the hospitals level of all the governorates; however, among the 143 districts existing in Iraq, only 11 had Xpert testing services available²⁶. The priority groups for Xpert testing which were specified in the National Tuberculosis Management Guideline include the contacts of DRTB cases, health care workers, PLHIV and “seriously ill patients”²⁷. As a result, this gap has contributed to the limited coverage of eligible population with appropriate DRTB diagnosis services. In addition, contact tracing (as a means of TB screening) was happening but in a very limited scope²⁸. In 2017 and 2018, 100 and 75 DRTB cases respectively were identified through NTP services; all of which were treated free of charge, with 2nd line TB drugs in both years. DRTB cases detected in 2018 accounted for 20% of the estimated number of DRTB patients among notified TB cases²⁹.

On the treatment side, the picture was a little different. At the national level the number of DRTB patients who were treated had progressively increased since 2010. In 2016, 2017, 2018 and 2019, respectively 7,603, 7,401, 4,251 and 7,861 Xpert tests were performed. Drug sensitivity tests (DSTs) for 1st and 2nd line TB medicines were carried out in the National Reference Lab (NRL) in the National Tuberculosis Institute. DRTB cases were registered, pre-treatment assessed and enrolled on treatment regimen with 2nd line TB drugs in two sites in Baghdad and Basrah. The last cohort of DRTB treatment before initiating the MSF DRTB project was established for the year 2017. During that year, 83 patients were put on 2nd line TB medicines; 67 of them were successfully treated (nearly 81%). The NTP therefore reached a good treatment success rate for DRTB cases. All the DRTB patients on ambulatory care identified in Baghdad and Basrah received free treatment. The hospitalization (if needed) was done in the TB ward of Ibn-Zuhir Hospital in Baghdad or in Basrah Hospital. The treatment success rate progressively had increased from 53% in 2014 to 77% in 2017³⁰.

As mentioned, there were two DRTB management sites only for the whole country. However, the treatment was not directly supervised for most of the patients who take the TB medicines by themselves. As at that time, there was no decentralization of the PMDT activities (Programmatic

²³ MSF (2017). Exploratory missions report.

²⁴ MSF (2017). Exploratory missions report.

²⁵ Given the advances achieved in TB diagnosis, the first step in identification of drug-resistant is through Xpert testing.

²⁶ NTP (2019). TB Program Review report.

²⁷ NTP (2020). Iraq National TB Guidelines.

²⁸ NTP (2019). TB Program Review report.

²⁹ NTP (2020). TB National Strategic Plan 2020-2024.

³⁰ NTP (2020). TB National Strategic Plan 2020-2024.

Management of Drug-resistant TB) at governorate and district levels by the time when the project was initiated. In addition, there were wards for PMDT patients in two hospitals only (24-beds Ibn Zuhir Hospital and 32-beds Basrah Hospital)³¹. An assessment by MSF in 2019 indicated that the two hospitals have appropriate wards for PMDT patients may not be sufficient to cover the need of the country³². Given the ambitions of the NTP to increase the overall TB case detection, and with all patients being hospitalized, the centralized hospitalization policy was seen by MSF experts as unrealistic strategy to manage DRTB patients.

There were other gaps and challenges in clinical treatment practice as well. In the absence of national guidelines, doctors may opt sometimes to prescribe regimens outside the standard base on their own experience³³. Even if they were using injectable, there was no monitoring system especially ototoxicity before the initiation of MSF DRTB project and the services were not consistent. Until late 2019, there was no proper pharmacovigilance system in the country even if there was a department established for it. The pre-treatment assessment and the patient monitoring during the course of DRTB treatment were not fully carried out due to unavailability, scarcity, or inaccessibility of the required tests³⁴. The psycho-social support was irregular and most often does not cover all the patients with drug-resistant TB³⁵. Even though a significant proportion of DRTB patients were successfully treated, the capacities to manage drug-resistant TB patients were still not fully optimal³⁶.

The NTP organized a TB program review in 2019 with support from WHO and partners. The program review team had identified many of the gaps and challenges that MSF documented in its assessment reports. In addition, the review highlighted the financial gap that National TB Program was facing after the end of a 37-million USD Global Fund grant managed by UNDP for the period of 2008-2016. The budget for NTP activities, such as supply, supervision, training, and operational research, was insufficient. Human resources involved in PMDT were limited in addition to the frequent turnover of staff³⁷.

To lower DS-TB and DRTB transmission in the population, NTP needed to focus on providing and strengthening TB prevention, care and control services for identified high-risk groups, including refugees, IDPs, vulnerable groups, populations of “hot spots”³⁸. Targeting the population with the highest needs (disease prevalence and access to services) was essential for achieving the desired impact. One of the hot spots from TB perspective in Iraq was the Baghdad area, particularly the Rusafa district in Baghdad governorate. Please see section 1.2 below (MSF response to the needs) about the target group for more information.

³¹ MSF (2018). Internal project overview document.

³² MSF (2019). Model of Care for DRTB in Iraq and Planned Decentralization of Care and Management.

³³ MSF (2019). Handover report – Project medical doctor.

³⁴ NTP (2019). TB Program Review report.

³⁵ MSF (2018). Handover report - Nursing activity manager/Patient support.

³⁶ NTP (2020). TB National Strategic Plan 2020-2024.

³⁷ NTP (2019). TB Program Review report.

³⁸ NTP (2020). TB National Strategic Plan 2020-2024.

Summary of needs:

The context at the time when the MSF decided to respond was characterized by the following needs:

- Improving and strengthening the technical capacities of health staff involved in PMDT activities.
- Improving and strengthening the NTP capacities to detect and diagnose drug-resistant TB cases.
- Updating and ensuring the availability of national PMDT guidelines in line with the WHO recommendations.
- Ensuring the availability of treatment for the management of drug-resistant TB patients.
- Support initiating the treatment with the 2nd line TB medicines for all drug-resistant TB patients.
- Enhancement of a patient-centered TB care and services that aim to enhance quality of life for DRTB patients.
- Strengthening the infection control measures in hospital wards, CRDCs and TBMUs.
- Strengthening decentralized PMDT services.
- Implementing a pharmacovigilance system and strengthening of a routine surveillance system for DRTB.

Besides the programmatic needs, working in Iraq had some strategic appeal for MSF and the possibility to alleviate certain medical problems while building strong relationships with MOH and undoubtedly addressing the gap. The gaps were enormous, both in terms of detection management and rules. MSF identified a chance to operate without a large project, as Baghdad project was minor compared to other MSF operations, and there was some interest from the national TB programme to engage in changing the treatment policy.

“There was a kind of a political interest in working in Iraq and in having potentially a small, agile project that could address some medical needs, but at the same time build good relationship with the and definitely the gap. The gaps in TB were clear, ... were massive, both from detection management point of view guidelines were not up to date at all. The project that we have in Baghdad was relatively small compared to other MSF projects and there was a willingness at the time. At that time, we felt there was quite an interest from the national TB program and there was definitely a need for policy change, and they were not up to date in any kind of recommendations. With regards to drug resistant TB, especially, the detection gap was massive, the management was not very good. So, I guess that it was a good area to work on and that’s why we proposed the intervention, and we end there. Something else which is that as MSF, we did have a lot of expertise in the field of TB introducing new drugs, implementing policy change on that regard, a lot of collaboration with the different countries and with the WHO. So, it was considered an appropriate proposal, both from a medical needs perspective and from a political perspective.”

MSF central and regional stakeholder

1.2. MSF RESPONSE TO THE NEEDS:

EQ. 1.2. Did the intervention respond to the expressed needs and demands of the different stakeholders?

Summary of findings:

- *The intervention responded significantly and adequately to the needs and demands identified. Stakeholders who participated in the evaluation process all shared a positive perception of MSF response.*
- *While the evaluation documented challenging partnership environment at the initial phase of the project, that did not associate with gaps in relevance of the project but was more related to how MoH/ NTP stakeholders perceived the means to achieve the same objectives (please review the findings section about the connectedness of the project).*

MSF started the Sadr City TB Project on 2018 as an extension of the previously running Sadr City Emergency Room (ER) Support to the Imam Ali Hospital³⁹. The core of the project was to address some of the key gaps and challenges in management of DRTB services in particular areas in Iraq. Besides, MSF also proposed operational research that aimed to assess, under programmatic conditions, the effectiveness and safety of an injectable-free short-course (9-12 months duration) treatment regimen, with Bedaquiline (BDQ) replacing the injectable agent. The operational research aimed to involve patients with DRTB from Rusafa district, managed at the National Specialized Centre for Chest and Respiratory Diseases in Medical City (NTP), or diagnosed at the CRDC in Rusafa district and at the TB Management Unit (TBMU) in Sadr city in Baghdad.

Based on that, by 2017/2018, MSF decided to initiate an intervention that was targeting DRTB programmatic support both at clinical management level as well as operationally. In particular:

- MSF was interested in creating a better DRTB management through support to NTP and associated clinics and health facilities; and was not interested in opening a vertical TB project⁴⁰.
- MSF considered DRTB as an area where it has experience in supporting countries to address its challenges. This experience and knowledge could be of benefit to stakeholders in Iraq, given the challenges that NTP was facing.
- There was a desire from Iraqi authorities for MSF to be involved in the long-term non-emergency specialized project with possible academic impact. Such a specialization program would allow for referrals from across Iraq and enforce a need to network across Iraq⁴¹.

The evaluators consider MSF DRTB project as not a typical stereotype of a service delivery project, as it has an important element of policy changes. In addition, the project was also perceived by MSF

³⁹ MSF (2020). Annual project report.

⁴⁰ Interviews with MSF project staff and supporting staff.

⁴¹ MSF (2017). Exploratory missions report.

internal stakeholders as a 'catalytic project'. In addition, the evaluators consider the project has different targeted groups: (i) the community, including TB patients and their support systems, and (ii) the policymakers and service providers. The evaluators found not documentation that provide mapping of the stakeholders and their needs. However, the following analysis was developed as part of the ToC development process. It was important to investigate how the project and project staff has crafted a good implementation strategy to reach these target groups and the willingness of potential members from these targeted groups to cooperate with the project.

In October 2016, the WHO recommended that patients with DRTB who were not previously treated with second-line drugs and in whom resistance to fluoroquinolones and second-line injectable agents was excluded or considered highly unlikely, a shorter DRTB regimen may be used⁴². The WHO-recommended shorter regimen was composed of high-dose moxifloxacin, clofazimine, pyrazinamide and ethambutol throughout, supplemented by kanamycin, prothionamide, and high-dose isoniazid (10-15mg/kg/day) in the intensive phase (lasting 4-6 months) followed by a 5-month continuation phase of clofazimine, high dose moxifloxacin, pyrazinamide, and ethambutol. All drugs were given orally apart from Kanamycin which is administered intramuscularly. The WHO recommendation for the shorter DRTB treatment regimen was based on a review of data from several observational studies as well as a phase III randomized controlled trial. The regimen was developed as part of a programmatic approach to the treatment of DRTB in Bangladesh, and when high rates of treatment success were observed in this cohort, it was rolled out in several pilot settings under operational research conditions. As such, many countries opted to adopt the regimen under operational research conditions as per the WHO recommendation.

MSF planned in 2017/ 2018 to implement operational research on the effectiveness and safety of an injectable-free shorter regimen for RR TB treatment in the Rusafa district (*Research protocol: Effectiveness and safety of an injectable-free shorter regimen for Rifampicin resistant and Multidrug Resistant Tuberculosis treatment in Rusafa District, Baghdad, IRAQ*). Its main aim was to assess, under programmatic conditions, the effectiveness and safety of an injectable-free short-course treatment regimen, with BDQ replacing the injectable agent, in patients with tuberculosis confirmed to be DRTB seen at the CRC clinic and the TBMU in Sadr city. The protocol aimed at introducing the new, shorter, less toxic regimens injectable-free for DRTB patients under pilot conditions, with a pilot of the new regimen for up to 30 patients by the end of 2018. While the research protocol was approved by the MSF Medical ethics committee, it was never approved by the Iraqi Ethical Review Board (ERB).

We mentioned the contextual factors within which the idea and concept of this operational research was introduced, and how these factors contributed to lack of acceptance to implement the research and the overall resistance to introduce the new regimens. MSF adopted different strategies to engage NTP and stakeholders (including through WHO experts) to support the implementation of the research. However, these strategies were not successful. There was no advocacy strategy that the project team (and MSF Cell and SAMU) have adopted in order to support the research (despite the large number of meetings to discuss the activity). On the other hand, it was clear that MSF Cell and SAMU teams were engaging with MSF Iraq office to expend their perception about the DRTB project beyond the research. As mentioned before, there was a confusion about the identity of the project at the inception phase.

⁴² WHO (2020). WHO TB consolidated guidelines for TB management.

It seems there was a frustration among the project team about the lack of progress on this component of the project, and to extent that the perception about the value of the project was linked to the implementation of the research. For instance, as the project team did not get the Iraqi ERB approval, it was until early 2019 when the TB MD has joined the mission in Iraq. The link between the implementation of the research and the scope of the project may have contributed to many missed opportunities to achieve more results on other components of the project.

MSF response relevant to community needs:

To reduce TB transmission in population, NTP and partner organizations needed to focus on providing and strengthening TB prevention, care and control services for identified high-risk groups, including refugees, displaced populations, vulnerable groups, populations of ‘hot spots’⁴³. Baghdad, the capital and largest city of Iraq with more than 9.4 million estimated population, was the main hotspot for TB cases in Iraq. A study assessing the characteristics of DRTB cases registered in the NTP in Iraq showed that more than 30% of the cases registered between July 2011 and July 2015 were from Baghdad⁴⁴. Worsening socioeconomic conditions during the past decades, with poor living conditions and overcrowding, as a result, increased the incidence of tuberculosis. Baghdad is divided into two areas by the Tigris River: on the west Karkh and the east Rusafa. Most of the poor districts in Baghdad are located in the Rusafa district. These districts in particular share common characteristics of many unmet needs, including limited access to healthcare services in this area, lack of medicines in the primary care, besides the fact that many people living in this area do not have the financial ability (for transportation and service fees) to go to the hospitals or health centers close to their area.

“The majority of the patients that we have are very poor. They’re on the low socioeconomic status. We’re paying for their transport fee, you know. So I mean, at the end of the day, yes, of course, we wanted to decentralize so that they are nearer so they don’t have to travel like an hour or 2 hours. But at the end of the day, it’s a little bit like, okay, what is the most priority? They are low socio economic. They probably will want to receive the food basket that we’re offering.”

MSF mission staff

Sadr City, which is in Baghdad, is a highly populated area with a high level of poverty and overcrowding, leading to a higher risk of TB transmission. Many residents of the rest of Baghdad do not go into the Sadr City due to a large stigma and fear issues. The primary transmission of TB was higher in Sadr city due to living conditions. NTP staff indicated that two thirds of the DRTB cohort that comes from Sadr City and Rusafa district.

“Targeting a center city is good decision because the Sadr City I think maybe has about two thirds of our cohort from Sadr City.”

Iraq NTP

⁴³ NTP (2020). TB National Strategic Plan 2020-2024.

⁴⁴ MSF (2019). Context analysis document.

MSF teams estimated a caseload of 140 new cases per year (i.e., around 12 per month). 21% of DRTB patients detected nationally in 2017 (before project initiation) originated from Sadr City. When MSF explored the potential interventions, only 85 DRTB cases were detected in Iraq in 2016⁴⁵. MSF experts and national stakeholders (including healthcare workers at the TBMU / CRDC) considered a plausible assumption that there were many under detected TB patients.

While the selection of the project geographical area was driven by TB and DRTB data in terms of understanding the disease burden and the needs, data collected indicated that initial scoping considered also the political reality and considerations. MSF considered that Sadr City is one of the country's distinctive Shia dominant areas in Baghdad which might support or influence gaining the approval from the government for MSF support. It is important to note that MSF has projects (closed and active) in other regions of Iraq (Sunni and Kurds areas). Approaching MSF partnership with the government in such a balanced approach by taking the political considerations was an important factor in a country context like Iraq⁴⁶.

“We wanted to support one of the specific Shia groups of the country where we want to have like more leverage because we know that with governments, most of them as if activities were in in the north of the country, which are Sunni dominant, while Shia dominant, we were not doing anything. So, we were thinking of doing something in Baghdad in these areas to get acceptance from the authorities. And we thought that being present in Sadr City and working in Shia area will give us the leverage.”

MSF mission staff

Experts who conducted the TB program review consider that Baghdad is a hotspot for TB and DRTB, however, there were no official estimates for annual TB or DRTB incident infections at subnational level. High population density, over-crowded housing and inadequate access to safe water all contribute to the city's high TB burden⁴⁷. The relevance of the project arises from such important structural factors. The MSF DRTB project started in 2018, with its activities were being carried out in Sadr City within the Rusafa area. As such, MSF has succeeded to define a suitable strategic location to implement the project and in serving communities in high needs.

Part of the initial assessments of the needs, MSF objective was to perform an evaluation in terms of the interventions that would be necessary for the implementation of the drug resistant TB treatment. The assessments identified significant gaps in different areas, but mainly in the labs (as highlighted before). The biggest issues identified were linked to inefficient management, limited DRTB expertise, limited supervision, and lack of standards⁴⁸. The main community needs, and how MSF responded to these needs, were summarized below.

⁴⁵ MSF (2018). Internal project overview.

⁴⁶ MSF (2018). Analysis of Shia Political Dynamics in Iraq.

⁴⁷ NTP (2019). TB Program Review report.

⁴⁸ MSF (2017). Iraq – Baghdad Exploratory mission – 2017.

Suspected cases of DRTB	<p>Needs: Identify them through appropriate means, offering them the screening and testing services, and provide them appropriate care and services.</p> <p>How needs were addressed: MSF established plans for community engagement, contact tracing and supporting sputum transportation system.</p>
Patients	<p>Needs: Receive quality diagnosis, providing them with information and counselling about their condition, access to quality and safe treatment options, support them through the treatment period, address their psychological, financial and other needs, monitor treatment response and support them to complete the treatment successfully. Extend the support to their families to achieve quality care.</p> <p>How needs were addressed: In brief, most of the MSF service delivery were around these areas.</p>

Regarding the intervention design, MSF aimed to inspire patient-centred treatment (PCT) for DRTB patients through this project. However, the NTP culture at the initial phase of the project was focusing on health promotion (which is one component of PCT). Changing the approach towards a comprehensive PCT was a challenging but attainable⁴⁹. Patients were visited by the MSF nurse activity manager, which was not easy for non-Arabic speaker. Despite that challenge, MSF created great rapport with MoH health promotion team of who has been cooperating to introduce this concept of a patient-centred approach to patient follow-up.

“We tried to influence on the patient-centred care. We had a nurse activity manager who came for patient-centred care. she built quite a good relationship with the health promotion people because we really wanted to have patient-centred approach for the follow up of the patients.”

MSF mission staff

MSF response relevant to policymakers’ and service providers’ needs:

While most of the MSF DRTB project components were oriented towards delivering DRTB services, including case finding and patient counselling, the project included important elements of policy changes and capacity building. These elements were mainly targeting policymakers at NTP management levels, TB and DRTB physicians, lab staff and other service providers. As we look at the project in a more comprehensive approach, looking at these groups as targeted groups will allow better analysis of what the project team has made to address the needs of these groups, which in turn has important effects on the service delivery components towards the community. The evaluators consider the following stakeholders were part of the targeted beneficiary groups and summarize how MSF responded to their needs:

⁴⁹ The patient-centred care refers to “providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions.” The WHO identified eight principles to the comprehensive PCT of TB patients including (1) respect for patients’ values, (2) preferences and expressed needs, (3) coordination and integration of care, (4) information, communication and education, (5) physical comfort, (6) emotional support and alleviation of fear and anxiety, (7) involvement of family and friends, and (8) continuity and transition and access to care).

MOH senior leadership - beyond NTP management	<p>Needs: (1) services are delivered to population in need, (2) confidence about safety and quality of the services.</p> <p>How needs were addressed: (1) respecting national ownership to decide on whether the new regimen will be implemented or not. (2) Donating GeneXpert machine and cartridges, MSF had been recognized as an important partner by the NTP, MoH and partners like IOM, (3) continuous clinical mentoring and technical guidance to draft the national DR TB protocol.</p> <p>Despite these efforts, networking/ advocacy, trust building and ensuring MSF visibility should have been priority strategies to address the needs of this group, especially in a context like Iraq.</p>
NTP management	<p>Needs: (1) NTP strategy and plans are achieving targets, (2) services provision to patients diagnosed with DRTB.</p> <p>How needs were addressed: (1) capacity building opportunities and workshops, (2) involving the stakeholders NTP/MoH to identify priorities of intervention in relation to TB and understanding what other partners are doing and learning from their experience.</p> <p>A gap identified in MSF response was the lack of attention to assess the willingness of the main counterpart in project planning, especially NTP management, prior to commencing the project.</p>
DRTB physicians	<p>Needs: (1) addressing the deep rooted fear and misconception related to BDQ, (2) gaps in knowledge, (3) desire to feel protected against negative consequences of prescribing new drugs with potential toxicity.</p> <p>How needs were addressed: (1) familiarize them with BDQ and to remove the fear and misconception and enhance knowledge, (2) support the clinical decision making through consultations with project MDs, especially in making the transition to the new regimen, (3) capacity building opportunities and workshops in-country and abroad (mainly in South Africa).</p>

While these broad strategies to address the needs were considered relevant, the project documents did not clearly outline how the planned interventions would contribute towards the objectives. Several “expected results” were outlined at the outset of the project, but there was no explicit Theory of Change or equivalent document which laid out how it was expected that these output-level results would contribute to targeted policy change. As a result, there were critical gaps in the causal logic, especially around how the project’s advocacy, clinical and community-based activities were expected to work together to influence policy, and an incomplete assessment of the risks and assumptions implicit in the overall project strategy.

The evaluation process indicated positive feedback of external stakeholders about their perception about MSF team attitude in reaching out and collaborating with these stakeholders.

“They were (MSF team) strong, charming, helpful, and energetic. And MSF employees are exceptional. They persuade well. Our communication, coordination, and reaction times are extremely fluid, flexible, and quick. We normally work together as a team of colleagues from the same organisation. MSF’s team felt we could convince our colleagues and initiated seminars to convince them and our colleagues in governorates before generalising this method.”

Iraq NTP

Project stakeholders in MSF raised concerns about the length of the project and nature of engagement from MSF on supporting DRTB which requires a long-term commitment to address challenges in meaningful manner. MSF as organization might have approach this DRTB project in a different manner. The identity of MSF as an emergency response organization rather than development organization was seen as a factor that shaped the nature of MSF response in this project. A key point in this regard was the importance of adopting long-term thinking and planning while engaging in areas like TB programming (which requires long term commitments and clear planning for resources).

“We get frustrated very fast and since we are an emergency organization and every six months and three months, we change people; everyone comes with the new ideas. So, if things are not different on a paper, if things are not framed, each time you have people who put their input and they are different, they are like additional. So, in terms of these kinds of projects, we must think long term. We have to get people for long term engagements, and we should be patient. Also, all like annual review of operation is not the project way forward for this kind of projects every year we will not redefine the strategy. Let’s suppose you give me resources for five years. I negotiate, I have clear responsibilities. You can change and adjust a bit. But then we go in and you don’t ask me questions every six months or one year that you are not doing anything.”

MSF mission staff

“We would never go in with like we are still saying we are not a development organization. So, it’s not only emergencies but we can go a bit long. Let’s say we can have 3 to 5 years, but I don’t think we’ll ever get a development mentality, that’s not really what we do. And then it’s a question because it is TB and that’s where I think a little bit becomes confusing. We know that for HIV the TB for example, we will not approach those things just from a pure development perspective. We will go in because at a certain moment the situation is bad, you know, that many people are dying or have many disfigurements or there is a disruption of the normal thing and then we will enter. And that is because we just want to overcome the disruption. That’s why we always will have a little bit of short-term vision. We will never have this long-term vision, but it doesn’t mean we should not and that’s I think that’s important thing. It doesn’t mean if even if you think shorter, like three years. we still have to adapt some of our operations.”

MSF central and regional stakeholder

One of the issues MSF encountered in responding to the demands was determining how to prioritise its assistance to the national programme, which faced several obstacles. One of the MSF Project Support Experts identified this crucial element that influenced the original thought process.

“The main challenges were really related to poor management and of course, limited experience, supervision, lack of standards and testing. They had many problems, which I mean, I remember I documented them in my report. And the idea now was to say, how does MSF focus helping them, given that they have many problems, but at the same time helping them in a way that can be a win-win for both MSF but also for these laboratories.”

MSF central and regional stakeholder

1.3. OTHER NEEDS IDENTIFIED:

EQ. 1.3. Were there other TB or DRTB related needs that could have been addressed by the intervention?

Summary of findings:

- *Important parts of the intervention were relevant to the needs and context as established in previous sections. However, there were gaps in the design of the intervention at the initial phase of the project. While addressing DRTB needs and gaps was important in the project area, however; it is not easy (programmatically) to address these needs in isolation from other needs related to TB programming. The project would have benefited from addressing the DRTB and DSTB needs in a more comprehensive and integrated manner.*
- *One of the gaps in the project design was to link better with patients and to understand their access barriers. That includes the involvement of the communities in the identification of the needs and the design of the care model.*

The Project's clinical efforts were extremely important in impacting DRTB therapy and care models. Early diagnosis, effective treatment, infection control, psychological support, and palliative and end-of-life care were included in WHO guidelines for programmatic management of DRTB. MSF's operations were relevant since they were in line with these guidelines. The Project used quick upfront diagnostics in conjunction with second-line DST, a better treatment regimen consisting of new/oral medicines, infection control, psychological counselling, and therapy adherence support. These clinical mentorship and assistance efforts were important contributing factors to influence policy results to introduce new national DRTB treatment recommendations.

On the other hand, community-based activities and interventions were very essential to achieve better outcomes in any successful TB programming. Despite some efforts made by the project team to engage directly with the community, multiple factors did not enable the MSF to address the full needs of patients suspected or infected by DRTB.

“We did not have the full desired impact. If the services is not accompanied by patient voices and by activism, by a good understanding of which are the actions by patients are needed to access services. And also, I think this is one of the gaps to link better with patients to understand the access barriers. A better analysis on what is happening with nonselective barriers, what is coming from the Global Fund, what are donors doing? And that will allow us to link better with civil society.”

MSF central and regional stakeholder

2. APPROPRIATENESS

Definition:

For this evaluation, Appropriateness is defined as “evidence that the MSF DRTB project measure and report on the sensitivity of the intervention to the demographics across implementation geography.”

Main Evaluation Question #2:

To what extent has the MSF DRTB project in Baghdad been appropriate to the TB needs and Iraqi context?

The evaluation established that MSF DRTB project (design and strategy) were moderately appropriate (moderately satisfactory) to the TB needs and the local context in Sadr City, Baghdad. The appropriateness of the project was significantly related to its high relevance to the context. However, the project would have benefited from a better design and adoption of more fitting implementation strategy. The strategy adopted by MSF could have been better if the project team spent more time in conducting assessments, identification and prioritization of the needs, and development of clear strategy with clear targets.

2.1. APPROPRIATENESS OF PROJECT OBJECTIVES:

EQ. 2.1. Do the intervention objectives correspond to the identified needs?

Summary of findings:

- *The evaluation confirmed the general objectives of the project were highly appropriate to the needs of the patients at the time, based on MSF's thorough review and understanding of the DRTB context within Sadr City, Baghdad at the time the project was planned.*
- *It is important to take into account the lack of clarity about the project scope and identify, as elaborated in the previous section, while assessing the appropriateness of the project.*

The first exploratory mission referred to the potential scope of the TB/DRTB based on observations and data gathered. MSF aimed at supporting diagnostic improvement, treatment improvement, the introduction of NCE's and supporting an enhanced model of care for DRTB patients (including progressive decentralization of DRTB treatment and management). The project also aimed to support building the capacity of government entities responsible for delivering DRTB services. While MSF has decided to intervene in response to challenges related to DRTB, the nature of engagement remained unclear at an early stage of the 'project'. Internal review document indicated that MSF staff recruited to support the intervention, and those who work indirectly to support the coordination and other operations, might have not clear about the intervention identity and its scope⁵⁰. In fact, there was no official project title in many of the internal documents, and many of these refer to it as "DRTB intervention". One summary statement made by MSF staff "*the main activity is the technical support of NTP by expat TB MD and TB drug donation*"⁵¹. By 2019, and upon more maturity of thinking about the project, the project was given with an official title as "Improvement of DRTB management in Iraq and implementing an injectable-free shorter regimen for Rifampicin resistant and Multidrug-Resistant Tuberculosis treatment in Baghdad Governorate, IRAQ"⁵². For some time in 2019, there was no clear direction on the role of MSF in TBMU Sadr City. From clinical side, the support included a one-hour visit from the TB Medical Doctor (MD), and an occasional support from the lab technician. Still that MSF support was important, given the fact that there was only one doctor taking care of the clinic, who was approaching retirement. A new doctor was assigned, and MSF MD played an important role in providing support and coaching through updated information's and showing proper directions on treating cases of DRTB.

The following objectives and outcomes statement represent the MSF intentions in general terms during the project life cycles. The ToC Workshop confirmed these as the set of objectives and outcomes that shaped the scope of the project.

⁵⁰ MSF (2018). Internal project overview.

⁵¹ MSF (2018). Handover report.

⁵² MSF (2019). TB project – Action Plan.

Project Objectives:

1. Improving quality of DRTB case detection in MSF supported clinics in Sadr City in Baghdad, Iraq.
2. Improving the DRTB clinical care and management with quality assurance in Sadr City in Baghdad, Iraq.

Project Outcomes:

3. TB/DR TB Increase early case detection strengthened.
4. Programmatic and clinical care and management of DRTB strengthen.
5. Capacity built on new WHO guideline, new DRTB drugs and pharmacovigilance carried out.
6. Patient support and education enhanced.

The two objectives highlighted above remain the core objective areas for the project. However, the ToC workshop confirmed that the project's objectives have changed during the project life cycle in response to changes in the context. Changes were attributed partially to lack of clarity about the scope of the project as well as the changes in the context in which MSF team was trying to maintain the relevance of the project to the needs.

The way in which the project was oriented since the beginning was with focus on the development and rollout of the operational research/ study protocol. MSF project team was focusing on assessment of the study sites, conducted presentations and discussions on BDQ to familiarize the doctors and to also alleviate the fear of using BDQ among DR TB doctors. Later in 2019, the team started to reshape and redefine the specific objectives of the project, including revising the individual roles and contributions in achieving that role. As stated before, the project identity remained unclear. That has also influenced the clarity about the objectives and the project. The project objectives and scope changed due to the change in management of the national TB program, as the study protocol was not accepted at this stage. One project document described the general objective of the project as *'to support Iraq National TB Program (NTP) in the implementation of strengthened TB/DRTB case finding strategies, and programmatic management of DRTB, including rollout of new WHO recommended regimens for DRTB, with a patient-centered approach'*⁵³. At that point, and with the support from different MSF teams, the project team succeeded to draft an action plan on activities we can support the national TB program without the operational research which was shared with the NTP and MOH and accepted⁵⁴. By 2020, the project team started to focus on drafting strategies to improve DRTB case detection, patient education and counseling to improve adherence to treatment and reduce LTFU rates and working on the ARO.

2.2. APPROPRIATENESS OF PROJECT STRATEGY:

EQ. 2.2. Was the MSF overall strategy appropriate in order to achieve its objectives?

⁵³ MSF (2019). Monthly report - July 2019.

⁵⁴ MSF (2019). TB project – Action Plan.

Summary of findings:

- *The change model of MSF strategy to implement the MSF DRTB project were plausibly valid to have enabled MSF achieving the project objectives and outcomes.*

For projects to be successful, their stakeholder must identify options for the leverage mechanisms to achieve the goals⁵⁵.

Building on the documents review and series of interviews with the stakeholders, the evaluators consider the following were the key determinants of MSF DRTB project which has shaped its implementation strategy:

- MSF planned to conduct operational research to support the introduction of WHO recommendations on the new full oral regimens. The operational research was important from a scientific perspective and would encourage local authorities to adopt the recommendations faster. The operational research on the recommended regimen will build evidence, contributing to broader knowledge. While the research was not approved, the motivation behind it and the momentum created have all contributed to the results achieved.
- MSF was providing hands-on approach for its technical support to build capacity at NTP, MoH authorities, and MoH health workers. That would also help in addressing the fears associated with the possible adverse reactions when using BDQ. There was misinformation regarding the safety for the use of BDQ. This component of the strategy was effective to build trust and effective collaboration process with the government partners.
- There was a need to create motivations to change policymakers' perceptions in the national authorities about the programmatic benefits on introducing the new DRTB treatment. Tapping this determinant was essential to ensure some levels of policy changes were achieved.
- MSF needed to continue donating drugs and equipment to the national centre for chest and respiratory diseases in the medical city and the TB sector in Sadr City. While it was a gap filling strategy, it was essential to ensure continuity of services to patients.
- MSF considered enhancing the capacity to diagnose DRTB cases as an objective by its own, but also an opportunity to enhance the enrolment on the new treatment regimen. The support for the Lab rehabilitation as well as technical support in the national reference lab in the medical city were essential to achieve the objectives of the project. This was core to the project's values around ensuring sustainable capacity is created while providing opportunity for future additional changes.

⁵⁵ The assumptions statement for the leverage strategy should be as follow: once these leverage points are activated then the identified leverage mechanisms or alleviate the cause of the problem, and that will enable the project achieving the goals or objectives within the project's time frame. The leverage points could be looked at as the intervention variables or determinants. Defining these variables should come from a formal or informal theory from the designers that can suggest the best technical framework' to achieve the objective(s).

- MSF focused on enhancing the role of nursing in providing patient-centred care through provision of education and counselling to patients and their families. This has been central to desired changes in patient care model and quality of care.

For the DRTB project, the project identity and strategy might have been mixed sometimes with the scope of its parts. In particular, one component of the project was the operational research (entitled “Research on the effectiveness and safety of an injectable-free shorter regimen for Rifampicin resistant and Multidrug-Resistant Tuberculosis treatment in Baghdad Governorate, Iraq”). It is important to state that the overlap in the names has pointed to a reductionist view that equated the project to the operational research to support introducing the injectable-free shorter regimen for treating DRTB. On the other hand, other operational issues might have also contributed to challenges on perceptions about what the MSF DRTB project is about. For instance, the project staff indicated that the project has received less coordination attention and it was not autonomous on project related decisions. Support from the medical coordinators, early during the initial phase, as compared to other projects. The project being under the same umbrella with the ER project, which might have contributed to MSF DRTB project getting less attention⁵⁶.

Judging the appropriateness of MSF strategy should be linked with its effectiveness in achieving the expected results. However, it is important to note that there were gaps in trends and changes in DRTB-related program indicators, which hindered the ability of the evaluators to assess the plausibility of the potential role played by MSF DRTB-specific interventions considering external factors including economic or demographic trends.

Section four below provides summary of findings related to effectiveness of the report. Building on the evaluation outcomes, the evaluation team considers that the MSF DRTB project succeeded in identifying appropriate leverage mechanisms and the relevant determinants to achieve the desired changes/ outcomes of the project.

2.3. STAKEHOLDERS FEEDBACK ON APPROPRIATENESS:

EQ. 2.3. To what extent was the intervention appropriate according to the main stakeholders?

Summary of findings:

- *The policy-focused particular purpose was considered important by the stakeholders, as it was thought that it was required to show that the project's interventions were effective before they could be implemented into larger programmes. In addition, there was a significant gap in designing an appropriate strategy for advocacy/ policy change to support the implementation of the project.*

⁵⁶ MSF (2021). Project internal report.

The project suffered from lack of clarity about the strategy at the initial phase. This was mainly felt by the project implementors.

“When I joined I put it in the way that the questions on the strategy was mainly like what MSF wants to do? the other partner, what are their interests? what Ministry of Health wants to do? what national TB programme wants to do? They were not heard of, and these were not clear from the beginning. So it is like MSF, we want to promote this DRTB, and we want to implement this in the country. This is what we want, and this is the offer that we have. This is a package that we have. What are the interests of the other side? I think these were not considered or they were not understood properly at the time of defining the strategy. And sometimes as MSF, we push our own one-sided agenda all the time. I would say that although there was an assessment, there was team who went there, did the assessment of different areas and different places..... So, I had discussion with the [MSF] Cell where I clearly asked a question this is the need from the mission and the country, or this is something that South Africa unit wants, or could be the cell wanted ... you we need to clarify this.”

MSF mission staff

On the other hand, it was not clear for the evaluators or the stakeholders ‘why the project was not initiated as a pilot?’. Stakeholders considered that it was more appropriate to adopt such approach in the strategy design phase of the project. On the other hand, the evaluators did not find any indication for this piloting approach as strategy.

“The goal was to kind of do an unofficial pilot and then to show the results. And we did see, there have been different challenges on that.”

MSF mission staff

“First because we cannot implement a protocol in a region different than the Sadr City region, we should have done it as pilot, but it has to be a national protocol.”

MSF central and regional stakeholder

“This MSF project is like a pilot which succeeded in Sadr City. They are doing a great job technically and also, as you mentioned, to a specific location and with high impact. That’s about the program. And because, you know, you know, the Sadr City is the main city here in Baghdad.”

MSF country partner

Given the nature of the project, advocacy was an essential component of the project’s strategy. Advocacy efforts were less appropriate than other project actions. A clear advocacy strategy, however, was non-existent in the project, or it was not based on a situational assessment or the perceived requirements of the MSF targeted groups. Several significant organisations were named in the project documentation as key partners, including the Global Fund, IOM and WHO, and the TB Association, however the evaluators found insufficient evidence on adequate contact with them. Lobbying efforts concentrated on promoting the operational research to the national government, with insufficient participation from other stakeholders. As a result, lobbying efforts failed to target or reach many key policymakers and other important stakeholders early enough during the project initiation. Besides that, the engagement of the community and civil society organizations was not adequate.

“You can have [a] beautiful operational research, you can have results in a very well-done clinical trial if you want but it does not reach the policy level if you don’t have activism, and also if you cannot link with patients and others.”

MSF mission staff

While advocacy was identified as key strategy, stakeholders have different understanding of it as it means different things to different people.

“I think in the organisation we need to better understand what advocacy is because as I say, for different people might mean a different thing..... It’s a lot easier said than done.”

MSF central and regional stakeholder

The role of, and needs to, effective advocacy strategy was an area that different stakeholders emphasized its importance to achieve the project objectives. The evaluation process indicated a gap in crafting and implementing an advocacy strategy to support the project. In contrary to many country offices, the MSF mission in Iraq did not have an MSF advocacy officer/ specialist during the project period. Which in turn contributed to gap in coordination between the MSF advocacy central unit and the project team in this area. Given the nature of this project, which aimed at influencing policies, the use of appropriate advocacy tools was essential. Another option is to hire field coordinators with strong advocacy skills or to train current field coordinators in this area.

MSF internal stakeholders raised a doubt of whether the changes in the DR treatment guidelines could be attributed to MFS intervention or not and what other factors contributed to the change. Concern

was raised by MSF internal stakeholder on whether the MSF project team was focusing more on fieldwork and services and not enough interactions with stakeholders at the central levels, and to what extent that has contributed to outcomes of the project.

2.4. STRATEGY ADAPTATION:

EQ. 2.4. Did the strategy take into consideration changes in the environment in a timely manner?

Summary of findings:

- *The modifications and changes adopted by MSF through the implementation life cycle were partially appropriate to support the project.*
- *The proactive management by MSF of its plans and adopting different strategies have contributed to maintain relevance of the intervention. However, many of the project assumptions turned to be not correct or accurate within the context of the intervention.*

Given the resistance faced by the project team to implement the operational research component, the project leadership decided to adopt different approach to implement the project. That has contributed to maintain the relevance and appropriateness of the project to its context.

“I felt that this study (the operational research) will not go forward. We still have this ambition to continue improving the diagnosis and management of TB and drug resistant TB in general and in Iraq. So, this study might not be an option anymore. Therefore, we must go further. If people are interested, we can negotiate it to a higher level and see how to move forward. So, this was the time where we were redefining this whole way forward, when we completely know that the activities, we are doing, are not coming out in in a way that we expected.”

MSF mission staff

It is important to note that there was no clear separate log frame for the MSF DRTB project (it was put together with the ER in 2018 and 2019). The availability of a clear log frame for the project objectives was very essential to support the project team in aligning the objectives with the activities. On the other hand, the changes in the logical frame and perception about the identity of the project necessitate maintaining the relevance of the project.

The evaluators compiled a list of possible assumptions based on document examination and produced preliminary key informant interviews as part of the ToC development process. Please refer to Annex 3 for more details. Many assumptions held true at the activity to output level, while some assumptions only partially held true at the output to outcome level and beyond. The biggest area of worry in terms

of assumptions was advocacy, which only partially held from activity level onwards, which had ramifications for being able to assign the project's level of contribution to outcome level results.

2.5. AGILE PROJECT MANAGEMENT:

EQ. 2.5. What amendment may have been necessary to better embed the MSF DRTB project in this specific context?

Summary of findings:

- *There were frequent changes in the focus of the project in terms of project strategies. This may reflect lack of coherent change model of logical model from the start of the project.*
- *There was a slow adaptation of required amendments in the design of the interventions in the initial phase of the project, which was also attributed to gaps in the initial design of the project strategy.*
- *The situation created because of the COVID-19 pandemic has contributed to significant disruptions in the service design and delivery model.*

The project evolved throughout time to suit the needs of patients on the ground and the changing context, but these changes were made on the impulse of the momentum rather than in advanced and planned manner. While the initial project plan clearly stated the goal of changing major policies in these areas, there was no specific indications of how the project team should manage the change process if policy or other key changes to the context occurred during implementation. Despite this, adjustments were plainly made. These modifications assured the project's continued relevance, but they looked to be organic rather than the result of any deliberate adaptive strategy described in the Project plan or elsewhere.

The table below summarizes the shift of the project focus during different phases of the project as documented by the DRTB project team at the MSF Iraq mission⁵⁷. The changes in the context necessitated such kind of changes in the focus of the project.

⁵⁷ Annual Revision Orientation of TB project – 2020.

Table 2. Mapping of DRTP strategies during different stages of the project

PROJECT AREA	INCEPTION STAGE	MATURITY STAGE	EXIT STAGE
Implementation short all-oral regimen for under operational research	<ul style="list-style-type: none"> Finalization protocol and submission to MSF and local ERBs Preparation of the study sites Negotiations Program of Collaboration September 2019: enrollment 	Shift in focus. No activities.	Shift in focus. No activities.
Improve case detection	<ul style="list-style-type: none"> Strengthen Genexpert at the CRDC of Rusafa District and TBMU Sadr City 	<ul style="list-style-type: none"> Strengthen Genexpert Improve case detection in other TBMU without Genexpert by implementing sample transport and technical support to nearby Chest clinic or TBMU with GeneXpert 	<ul style="list-style-type: none"> Strengthen Genexpert all TBMs in Baghdad governorate
	<ul style="list-style-type: none"> Contact tracing (household contacts) for patients under the protocol 	<ul style="list-style-type: none"> Training and coaching of MoH Physicians for DRTB patients Strengthening contact screening 	
	<ul style="list-style-type: none"> Sputum collection in community 	<ul style="list-style-type: none"> Sputum collection in whole Baghdad Health promotion activities in the community 	
Strengthen treatment adherence	For DRTB patients under the protocol: <ul style="list-style-type: none"> Patient counseling and education Material support (e.g. transport fees, food support) for patients under the protocol Community (DOT) through patient supporters 	For DRTB patients under the protocol: <ul style="list-style-type: none"> Patient counseling and education Material support (e.g. transport fees, food support) for patients Community (DOT) for DRTB patients outside the protocol: Training and coaching of MoH counselors to strengthen the counseling and DOT 	
Decentralization	<ul style="list-style-type: none"> Support the decentralization of DRTB services in Baghdad governorate 		

On the other hand, the pace of changes was a concern for some stakeholders as the changes and amendments were seen as slow and did not support the project team to deliver on a clear strategy.

“You should not wait for two years to redefine the strategy and if there is something that needs to be done. So, in my point of view, if I would go back and do a TB program in any of the other country, similar kind of project if we need to implement, I will invest two or three months in studying and in finding what are the requirements, what are the needs, to avoid significant changes.”

MSF mission staff

“Things really changed after, I think one year and a half or so. So, with the change of the NTP director and also with some kind of clear understanding also from MSF team perspective, that the fact that we could not run the operational research didn’t mean that we could not we should have not pushed, which was supposed to be from the very beginning, to improve case detection, to introduce new drugs for patients who needed it, to improve the laboratory capacity and so on. So, at the end, I think we did make a difference because once the situation got unblocked, we managed to start lots of patients on new drugs.”

MSF central and regional stakeholder

The COVID-19 pandemic hit Iraq in March 2020, and it disrupted different essential services, including TB. For example, reduced number of staff available in the TB clinics and re-allocation of GeneXpert machines (half of the available ones) to Covid testing. There were reduced samples processed for TB tests, fewer people visiting the health facilities, and a high suspicion for Covid than TB among clinicians, which has put more pressure on doing more CXR and CT to rule out COVID-19. The NTP reported a 21 % reduction in TB case detection in the first three quarters of 2020 compared to the same period in 2019. The detection of DRTB showed a reduction (110 in 2019 Vs 98 in 2020)⁵⁸. Despite the diagnostic challenges, the NTP ensured the continuity of treatment for DRTB, especially patients on old injectable regimens, by sending drugs to the governorates during the lockdowns. Patients on oral regimen followed at the medical city and provision of two-month supply were provided based on the month on their treatment. The pandemic also positively impacted the NTP to include DRTB patients in the oral regimen in addition to the initial agreed patient groups, especially those patients who can be easily accessed to get monitoring tests regularly. The patient’s groups also include children, pregnant women, patients with comorbidities.

3. CONNECTEDNESS

Definition:

Connectedness is defined as “evidence that the activities of MSF DRTB project were carried out in a context that takes longer-term and interconnected problems into account in a sustainable manner, as well as the degree to which the designs and implementation attained an internal interconnections, complementarity, and coherence of how the project was designed and implemented”.

⁵⁸ MSF (2021). Quarterly project reports Q1 and Q2.

Main Evaluation Question #3:

How connected has the MSF DRTB project been in the context?

The evaluation findings indicating that the project was connected (satisfactory) to its context. The project has demonstrated clear values of effective partnership, interactions, interconnections, complementarity, and coherence in how the project was designed and implemented. The project was successful and active in alignment and coherence with relevant DRTB interventions (or TB in general) implemented by other actors in the context. This resulted in good opportunities to embed and well-integrate the project within the local health system. However, there were missed opportunities to establish better alignment with local stakeholders in the Iraq context.

3.1. LEVERAGING LOCAL RESOURCES:

EQ. 3.1. What local capacities and resources were identified? How did the project connect with these?

Summary of findings:

- *The extent to which the project connected with local actors varies across sectors and was influenced by the weak TB partnership environment in Iraq.*
- *The project was successful in connecting and building good working relationships with all the relevant government entities interested in DRTB. However, there was no evidence that the project was connected with the local health authorities at the governorate and district levels. In addition, there were missed opportunities for building connections with other actors in the local context from the private sector.*
- *The limitations associated with lack of clear advocacy strategy was linked to limited reach by the project team to all the relevant actors and stakeholders.*

MFS has the global experience to work with many service providers and to support improving DRTB treatment and management. The experience and resources available to MSF to support the DRTB in Iraq were valuable. The extent to which the project connected with local actors varies across sectors.

The project succeeded to establish a good working relationship with governmental entities in Iraq, to a varying degree. For instance, there was no evidence that the project attempted to build a partnership with the local government entities in Sadr City. While there was an assigned TB Officer, there was no documentation of connections with the health authority in the governorate or district levels. On the other hand, and given the proximity to NTP offices, there was more interaction with the NTP (i.e., national level stakeholder). In addition, the government was sensitive to NGOs and their operations in

general, particularly international NGOs with foreign workers, and has taken efforts in the past to monitor their activities, such as tightening security clearance procedures and access limitations.

“We had a very good relationship with Ministry of Health towards the last one and a half year when I was there and hope it continued the same way after.”

MSF mission staff

There were not many local non-governmental organisations working on TB-related programming in Iraq. That extends to local civil society organizations as well. As a result, the project was not connected to any local organizations except the IATA (Iraqi Anti TB association). The association is composed of medical doctors who share mutual interests to advance TB care in Iraq. Although, there were limited interactions between MSF and the associations; no tangible outputs resulted from this relationship. In addition, there was no formal or informal community-based entities that represents the interests of the communities or patients. The culture for forming such kind of entities in response to health needs was limited in Iraq.

“And the most important, there are patients. So, if we want to talk about patient-centre [care], we really need to move away from the rhetoric patients and their patients. Patients and make patients sit there and listen to their voices. Right. So, this is something we are really bad at because when they think about partners, they only think about the government.”

MSF central and regional stakeholder

Even though MSF was not a member of any of partners coordination platform (as no such existing platforms), the project's connection with government-linked institutions, such as the National TB Program and the National Institute of TB, ensured that MSF activities and approaches were included in discussions at the national level. MSF in Baghdad was sharing its methods and findings with the local IOM office. In addition, while the Global Fund supports Iraq through a regional grant implemented by the IOM, as opposed to a country grant, there was no Country Coordinating Mechanism for this Global Fund grant in Iraq. This possessed a challenge to coordinate with other international partners as well including the WHO Country Office.

“And also, the great job for the MSF for doing the technical support to the national TB program which are for DRTB patient. ... I cannot say that there was regular coordination meeting between IOM, MSF, but there were many coordination meetings that conducted to avoid duplication. Our activities make it like complementary activities. So, there is sometimes delayed coordination, but in general it's perfect.”

MSF partner - Iraq

The TB program review report indicated that the NTP had established good linkages with the private medical sector, especially since 46% of the notified TB cases were referred from the private medical sector in 2019⁵⁹. Despite that, TB drugs were not prescribed in the private sector, and there were no TB drugs in the private pharmacies (i.e., the private sector's role is mainly on the diagnosis end of the services). The review estimated that more than 300 laboratories provide TB diagnosis services in the private health sector. However, these laboratories were not supervised by NTP and no formal oversight mechanism in place. Despite the significance of the private sector in the diagnosis and referral of TB cases, there were no attempts by the project to connect with the private sector providers. This could be attributed partially to the limited scope/ focus of the project rather than considered a gap in strategy or as a limitation. However, this could be considered a missed opportunity to link with large private hospitals and clinics in Sadr City, which could have contributed to enhancing early DRTB case detection in the district.

“It was in the activities, it was supposed to be in the activities to get more involved in case finding not only through support to diagnostics like Genexpert and support to the national lab, but also with the development of a more community-based, the need to assess the role of, for instance, of the private sector, because it's very important in Iraq to make sure all contacts were screened. I'm talking mainly about TB because † I don't think we did enough.”

MSF central and regional stakeholder

Beside its programmatic and operational support, MSF global efforts has an important advocacy mechanism in place, which were available to the project team to mobilize. However, the evaluation found a gap in ability of the project to mobilize local capacities and resources through a clear advocacy strategy.

“I felt like maybe there was a bit of a disconnect, the investments we were putting vis-a-vis the problem that was there, which was just to change the drug, which already was approved by WHO at that point in time. And it was more of an issue of just lobbying at country level instead of investing a lot to try to do that, I felt like there's a bit of a disconnect. We could have easily achieved what we wanted to achieve with less investments that probably we ended up doing. But it all comes to communication.”

MSF central and regional stakeholder

⁵⁹ NTP (2019). TB program review.

“I’m not sure that we took best advantage or leverage from all those relationships that we had. So, we were in terms of good and contacted them, meeting them, but I’m not sure that we were able to influence them changes, influence and bring in some changes in the system. We could have utilised a bit more if there was any opportunity.”

MSF mission staff

Deep dive analysis on level of engagement with local partners:

Within its context, the MSF DRTB project has benefited from the collaboration with governmental organizations responsible for TB services at different levels (policy level and service delivery levels). If linkages or partnerships with these functional groups were not properly established, implementation of the project may be hindered. The evaluation looked carefully into how MSF has approached its partnership with the concerned organizations, including the engagement with NTP, Medical City, CRDC, TBMU, NRL, and Ibn Zuhr Hospital. Please see Annex 7 for more details.3.2. Partnership strategy:

EQ. 3.2. To what extent was the MSF way of working effective in attracting and working with different partners as a mean to achieve objectives?

EQ. 3.3. To what extent was the intervention embedded in the local health system, overall national strategy and building on existing capacity?

Summary of findings:

- *The project received very positive feedback from all the stakeholders participated in this evaluation regarding the project’s role and how the project team connected with them.*
- *The analysis of the project TOC and change strategy indicated that the project was very effective on how it worked and collaborated with partner entities (especially the government sector institutions).*
- *The project succeeded to strengthen many of the local health system capacities to support DRTB interventions in Sadr City, Baghdad.*
- *The ability of the project team to link and collaborate with partners contributed to many of the achievements made by the MSF DRTB project.*

While this section of the report provides description of working modalities and how it has contributed to the local health system and building capacities, it is important to note the connection between this section and the report section that focuses on ‘effectiveness’ criteria.

“The project in Baghdad was not a vertical project from MSF, we are supportive of the national TB program. We are not running the program as the program is run by NTP. What we are doing, we are following the guidelines they have made, according to WHO guidelines, and these guidelines were also supported by MSF.”

MSF mission staff

All the stakeholders interviewed as part of this evaluation (including NTP, MoH, TB Association and IOM) agreed that MSF has been an important and significant partner who supported the TB program in Iraq. The level of support and way of engagement has been one of the strengths identified.

As highlighted in the change model of a previous section (and please see Annex 3 for more details), the DRTB project has different component and pillars. The change model reflects general activities which were translated into a set of concrete, organized and implementable activities and tasks and day-to-day work plans. The translation of the strategy into activities requires an intervention protocol or work plan plus service delivery protocol or guidance. Service delivery protocol (to support NTP and MoH entities), refers to the steps to be taken to deliver the interventions in the field. These protocols were linked with the technical approach of 'how' the work has been done technically (i.e., translating the programmatic objectives into action plans). These combined aspects could be considered what would constitute the '**change strategy**'. In principle, the success of any service delivery projects will depend on the degree to which the service delivery protocol was well established. The components of the change strategy, which were operational in nature, can determine to a great extent the success of the change model. To structure the analysis, the evaluators focused on the following key project pillars to assess the service delivery protocols.

- Laboratory.
- Support DRTB case detection.
- Clinical management.
- Patient support and improvement of adherence.
- Operational research.
- Infection prevention and control.
- Capacity building.

The assessment of each pillar will focus on: (1) summary of 'how' the project team approached the change strategy for each pillar; (2) reflection on whether the change model was successful or not.

Laboratory:

MSF has achieved the desired level of outputs and outcomes planned in this area. In general, the change strategy was successful in supporting achieving these results. On the other hand, relying on the MSF lab technician to do routine activities, data collection, regular maintenance of GeneXpert machines which can be a challenge from sustainability perspective.

Support DRTB case detection:

The evaluators believe that one of the achievements under this project was the introduction of GeneXpert as first test for TB/DRTB diagnosis in Sadr city. Calling back the context at the time when the project initiated, GeneXpert was not in use for this purpose. The close collaboration made through

MSF lab experts, in addition to contributions made by MSF MDs and MedCo to advocate to such change resulted in this achievement. Adding to that, MSF continued to donate GeneXpert cartridges to Sadr city TBMU, which has ensured that the availability supplies were not a challenge to NTP. The change strategy in this regard was considered successful. It enabled the targeted communities in Sadr City an access to appropriate diagnosis services. This was also combined with efforts made to enhance the quality of DST provision, which are both shall contribute to enhance DRTB case detection.

Clinical management:

The evaluators consider that the implementation of the oral regimen was possible in 2020 due to multiple factors. These including the change in NTP management, rGLC mission visit in Oct 2019 and recommendations, the release of the WHO guideline and MSF drops going on research as a main topic and push from other partners like IOM and WHO. The role MSF played in achieving this important change needs to be assessed and explored further.

Patient support and improvement of adherence:

The evaluation team found that MSF team has approach the support in this area in a very systematic manner. The initial engagement with the NTP counterparts was based on a thorough assessment⁶⁰. The assessment was done to make a clear image of what was already in place, what were the needs and where MSF can support those needs. The approach of the MSF team was to make a culturally adapted strategy for patient support. It is important to note that there was no DOT system in place at PHC level.

Operational research:

MSF adopted different strategies to engage NTP and stakeholders (including through WHO experts) to support the implementation of the research. However, these strategies were not successful. It was not clear for the evaluators what was the advocacy strategy that the project team (and MSF Cell and SAMU) have adopted in order to support the research (despite the large number of meetings to discuss the activity). On the other hand, it was clear that MSF Cell and SAMU teams were engaging with MSF Iraq office to expend their perception about the DRTB project beyond the research. As mentioned before, there was a confusion about the identity of the project at the inception phase. It seems there was a frustration among the project team about the lack of progress on this component of the project, and to extant that the perception about the value of the project was linked to the implementation of the research.

Infection prevention and control (IPC):

While IPC was included as part of some project documents, it was not clear for the evaluation team what MSF wanted to achieve or intended to do with the DRTB project.

Capacity building:

Capacity building was a cross-cutting change strategy that supported all project components. Capacity building activities have contributed directly and indirectly to many of the successful changes achieved by the project.

⁶⁰ MSF (2019). Strategy for Patient Support and educational counseling for patients with DRTB.

3.3. CONTINUITY OF SUPPORT:

EQ. 3.4. What problems can be identified for the continuity of the intervention objectives, and how have they been taken in consideration by MSF?

The scope of the evaluation was not meant to assess the sustainability of the DRTB project. However, it was important to understand if the project was successful in creating any significant change in its context that will mostly continue following its closure and what problems it might face.

The focus on strengthening the capacities and capabilities of the lab was proven to be a good strategy, which was crucial for the project to achieve its objective. The support provided by MSF to build NRL's capacity is one of the areas in which the project has demonstrated the ability to sustain the gains. As was discussed in other sections of the report, the outcomes achieved in this area will most likely continue following the exit of MSF from the project.

Since the beginning, one of the main strategies targeted by the project has been decentralizing the DRTB service provision to lower levels of the health system (i.e., primary care). The project has successfully focused on supporting NTP in this area during the exit phase, and according to NTP officials, this will be the policy for the next period. However, one of the challenges that NTP will face is the level of effort and associated resources needed to achieve this in the country. While the project was meant to focus on Baghdad only, this policy change cannot happen only in limited geography and needs to be introduced in other governorates. MSF is supporting NTP to introduce and strengthen the decentralized approach in six governorates, which will contribute to supporting the continuity of this policy after the project closure.

4. EFFECTIVENESS

Definition:

Effectiveness is defined as “DRTB intervention is well implemented and adapted as needed. There is evidence on the extent to which the intervention is achieving, or is expected to achieve its objectives, results, including any differential results across groups”.

This effectiveness section addresses the extent to which the intervention has achieved its objectives in line with three focused components: DRTB detection, diagnosis, treatment and policy changes related to these areas. In addition, the project was considered as an important mean to better position MSF in Iraq in strategic manner. The findings address ToR EQ 3, and evaluation matrix questions 4,5 and 6.

Main Evaluation Question #4:

To what extent has the MSF DRTB project been effective in achieving its objectives?

The evaluation findings indicated that the DRTB project was moderately effective in achieving its objectives. The project was successful in delivery of targeted services, achievement of targeted outputs and influence on patients expected outcomes. However, the lack of pre-set measurable objectives targeted before the initiation of the project made it impossible to measure the actual effects of the project in an objective manner.

4.1. PROJECT ACHIEVEMENTS:

EQ. 4.1. To what extent have the expected objectives been achieved?

EQ. 4.4. Did the MSF intervention create any unintended effect?

Summary of findings:

- *The project objectives were broad, and vaguely articulated with gaps in outlining how the desired outcomes of the intervention would be achieved.*
- *Out of the cohort of 110 patients, 83 have been successfully initiated on the WHO recommended oral DRTB regimen.*
- *The high level of patient retention in the DRTB cohort can be attributed to the provision of transport support and food baskets to patients with DRTB to decrease the financial burden of treatment, and to encourage patients to attend their follow-up appointments as advised by their healthcare providers.*
- *There was a consensus from the project staff that the decentralization approach for a patient-centered care initiated by MSF for the DRTB treatment and management lacks clarity and coordination and hence might result in improper replicability across the governorates.*
- *There was not enough evidence to substantiate that the MSF intervention had an unintended effect in the given context.*
- *Project activities were adapted at several intervals during the intervention in response to identified challenges and the changing context.*
- *The MSF intervention directly influenced a national policy change in the treatment of DRTB in Iraq through the provision of technical advice and support to NTP in the transition of injectable-free WHO-recommended oral DRTB treatment. The project meant to be designed a catalytic project; however, the gaps identified in the project appropriateness and design have contributed to gaps on how the project shall approach the targeted policy changes.*

4.1.1. Project achievements against objectives, outcomes:

Important note: the data set used for this evaluation is solely from the NTP to showcase the targeted results the project has at the national level. Part of our limitation is the insufficiency of data provided by the project to enable us attribute contributions from both parties. However, the evaluators were able to match the role played by the project with timelines between 2019 and 2021 which was sufficient to measure its results. It was not feasible to separate the achievements attributed solely to Sadr City from the national data as the project lacked a proper M&E structure from the onset.

The overall objective for the intervention had two elements: improving DRTB diagnosis and clinical management in Baghdad, Iraq. Both components of the objective were achieved to some extent during the intervention period. At the national level, there was improved DRTB diagnosis through MSF advocacy. Prior to the intervention, there were several gaps in DRTB diagnosis in Iraq with varied standard operating procedures (SOPs) and guidelines used for diagnosis and treatment in the different clinics and governorates. Among several best practices introduced by MSF team to improve diagnosis was the use of GeneXpert as the first line of DRTB sputum testing in line with recommended best practices. In addition, MSF supported the standardization of SOPs and guidelines for use in the laboratories and the clinics.

DRTB treatment, which is typically less effective than DSTB treatment, poses a challenge for TB control and elimination. The evaluation team's goal was to assess treatment outcomes and determine the factors linked to differing outcomes among DRTB patients in Sadr City as part of this evaluation. The evaluation team assessed effectiveness of the project by assessing services provided to DRTB cases reported during the period 2019 to 2021, using the TB surveillance system reporting databased shared by MSF project team. Treatment outcomes were defined according to WHO recommendations, these include cure, failure, death and lost to follow-up. The percentage of cases for each outcome is determined considering the total number of patients who started treatment over studied period (i.e., the treatment cohort).

The MSF clinic over the period of 2019-2021 recorded higher number of bacteriological confirmed DRTB cases with few DRTB cases being clinically confirmed. Based on these results, MSF demonstrated and have been able to achieve the goal of improving clinical diagnosis of DRTB cases and this can be seen as successful and contributing to policy change regarding using GeneXpert as first line of diagnosis in Baghdad.

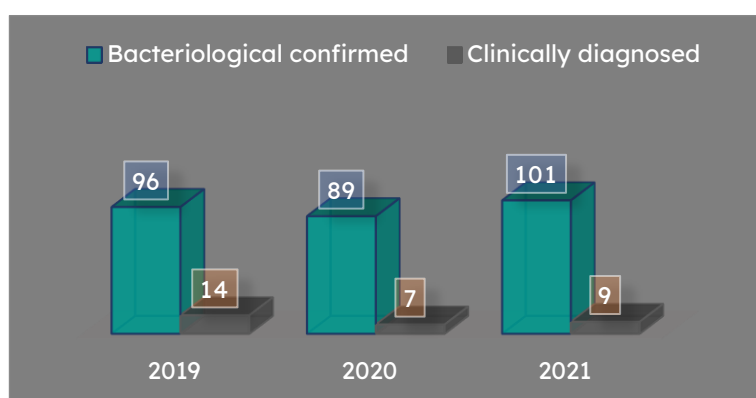


Figure 3. MSF DRTB patient case confirmations

MDR-TB diagnosis requires a positive culture or detection of both acid-fast bacilli by microscopy and an Mtb-specific nucleic acid amplification testing, followed by detection of resistance to isoniazid and rifampicin by genotypic and phenotypic methods. The evaluation team included in the analysis culture-positive MDR-TB cases tested for resistance to first- and second-line anti-TB drugs by phenotypic methods, the conventional gold standard. All tests were performed in laboratories integrated into the national network, periodically certified and checked.

The second element; improved clinical management of patients emphasized a patient-centered care model. The components of this included individualised treatment regimens using recommended new oral drugs, and patient education, counselling, and adherence support. TB treatment success (the percentage of cured patients and those with treatment completed) is one indicator for monitoring implementation of the End TB Strategy. Globally, the recommended target level for 2025 is above 90%. In the many countries in Middle East, including Iraq, the treatment success rate for DRTB cases treated still standing far from the established goal⁶¹.

Treatment outcomes for patients were considered good with few loss-to-follow up (LTFU) recorded. As described in Figure 4 below, by 2021, out of the cohort of 110 patients, 83 have been successfully initiated on the WHO recommended oral DRTB regimen. Preliminary analysis by the MSF team in 2021 showed that the LTFU rates for patients was the new oral regimen of bedaquiline was 2.9% compared to 12.3% on the injectables⁶².

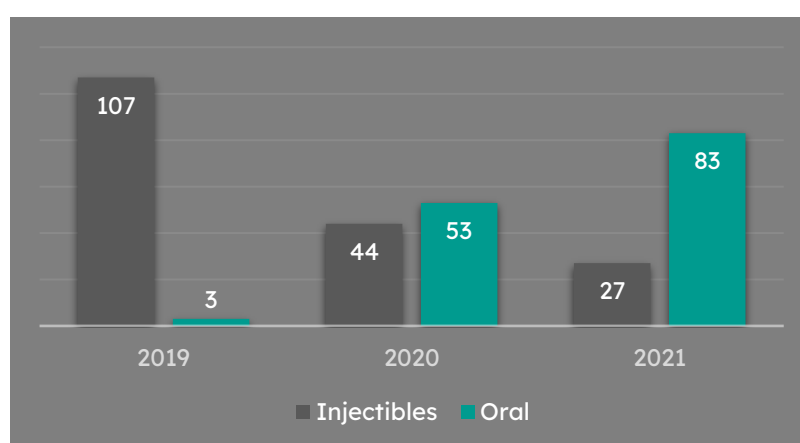


Figure 4. DRTB Treatment by type of regimen

Data collected reflects 317 (61% Male and 6% children) DRTB patients were treated in Iraq between 2019 and 2021. In 2019, 110 (34.7%) were treated with 65 (59%) being male and 5.5% children; In 2020, 97 (30.6%) were treated with 56 (57.7%) being male and 5.1% children; for 2021, 110 (34.7%) treated which includes 73 (66.4%) males and 7 (6.4%) children. Most affected age group in reached by the project were the economic age group (88%) with the mean age standing at 37 (n=312) while the modal age was 30 years (n=312). This demographic spread of male preponderance to TB, relatively low

⁶¹ WHO (2022) retrieved from <http://www.emro.who.int/entity/tuberculosis/index.html#:~:text=In%202020%2C%20the%20number%20of,disease%2C%20except%20COVID%2D19?>

⁶² H. Tesfahun, et al (2021). Introduction of new drugs for drug-resistant TB in Iraq. The International Journal of Tuberculosis and Lung Disease. 5(12):1041–1044.

percentage of DRTB cases in children and economic age group affectation is similar to finding in the global picture. The WHO recommends 10-15% case finding for children and the project were not able to meet this standard most likely because it was not designed to actively find new cases. Also, the high number of adults affected negatively implies on the catastrophic cost to each family who has a DRTB patient. These factors point to the need for bespoke gender-specific interventions mainly targeting men.

From this cohort, data indicated 124 (40%; n=317) to be cases of primary DRTB infection interpreted as patients who were not previously exposed to First Line Drug (FLD) for Drug Susceptible TB (DSTB) for a month or less before developing DRTB. This figure was significantly high and may imply non-existing or ineffective infection prevention and control practice which needs further intervention. Patients with previous exposure to FLD for DSTB forms 54% (174) while there were no records for 19 (6%) patients. Further probe into the previous outcome of the initial treatment of the 174 exposed cases were due to treatment failure leading to DRTB in 96 (55%) patients; followed by a 48 (27%) patients not evaluated or missing data which makes it difficult to ascertain why these patients' developed resistance. Not evaluated patients were more in 2019 (22) and 2020 (18) while it was significantly reduced to 8 by 2021. Only 3 of these cohort (2 in 2019 and 1 in 2020) were classified as Lost-To-Follow-Up (LTFU). Of the 317, we found 29 patients with previous exposure to Second Line Drugs (SLD) while 95 had missing data.

Analysis of the various care sites (Governorate) shows that 85% of these patients started treatment in Baghdad (94, 85,90 in 2019, 2020 and 2021 respectively). This was followed by Basra where 11% of patients were initiated on treatment; Deohuk had 5 while 7 were from other Governorates. As at 2020, no other Governorate except Baghdad, Basra and Dohuk had DRTB patients initiated on treatment. This gives a picture of DRTB care being centralized in Baghdad for various reasons and calls for a need to decentralize for better coverage and patient-centered approach to care. This will reduce the out-of-pocket expenditure on the patient and family, increase accessibility and availability of DRTB care in the other Governorate and also saves patients' time in general.

To ease classification of patients at treatment initiation, the terms "previously treated" and "new on treatment" were broadly used. In total we had 176 patients (56%) documented to be previously treated while 124 (39%) were new to DRTB treatment. There were no records for 17 patients. Very interesting to see that no HIV positive case was captured while there were no records of patient's HIV status for 187 (59%) patients. This may be due to multiple factors which needs further assessment. It is very critical to understand the HIV status of DRTB patients as it has implications on the quality of care delivered. It was also found that the proportion of non-documented HIV status progressively worsened with the years from 39 of 110 in 2019 to 61 of 97 in 2020 and the majority were from 2021 (87 of 110).

The evaluators were able to retrieve data for 189 patients with specific diagnostic and treatment start dates to ascertain the turnaround time (TAT) for treatment initiation. The remaining 128 (40%) either had inappropriate dates recorded (commonly treatment initiation dates earlier than diagnostic date), or no record of either or both dates spreading across the 3 years of implementation but worse in 2019.

The earliest TAT was same day for 20 cases (11%) (14 from 2019) while a total of 92 (49%) were placed on treatment in their first week of diagnosis and 110 (58%) within 2 weeks. Patients initiated on treatment within the first month and beyond were 79; of these, 14 started treatment more than one year after diagnosis (28 from 2021). This area needs a lot of attention as it has a direct impact on several disease control measure especially the spread of primary DRTB disease, reduced quality of life leading to complication and poorer outcome of treatment. This also places heavier financial cost on the project as the cost per patient from diagnosis to cure will significantly increase. There were no records for 83 patients, and this may introduce some bias in analysis of the true situation coupled with the wrong entry of dates.

Two forms of treatment options were notable globally as recommended by WHO which are injectable and oral regimen. It is quite impressive to see that all 317 patients have their regimen clearly stated with no missing data. For the lifespan of this review, 179 (56%) patients were initiated on injectables while the remain 138 (44%) were initiated on oral-based regimen. Data shows a rapid shift from 3% oral regimen in 2019 to 55% in 2020 and to 74% in 2021 (see Figure 4 above). This directly lowered the use of injectables from 97% to 26% within 3 years. This aligns with the main objective of MSF in Iraq and shows the attention paid to this arm of service delivery. It also displays a possibility of Iraq achieving at least 95% use of oral regimen with continued support from MSF and any other partner.

Treatment outcome may only be obtained from the entire 2019 cohort and to an extent 2020 but not 2021 as at the time of this assessment. We were able to make some comparison which may not be conclusive but useful for monitoring. From the 2019 cohort, 72 of 110 were treated successfully with 37 (51%, n=72) being cured, 21 (19%, n=110) LTFU, 1 patient not evaluated and 9 (8%) died. The available report for 2020, which is expectedly incomplete with 53 missing data, shows out of 28 of 44 patients were successfully treated with 24 (86%, n=28) cured, 4 (9%, n=44) LTFU and 8 (18%, n=44) died. This as earlier stated may not represent the final picture for 2020 but a proxy to show an improved proportion of cured patients, reduction in LTFU and increased mortality when compared to 2019 cohort. Factors accounting for these findings need to be assessed to inform program quality improvement initiatives.

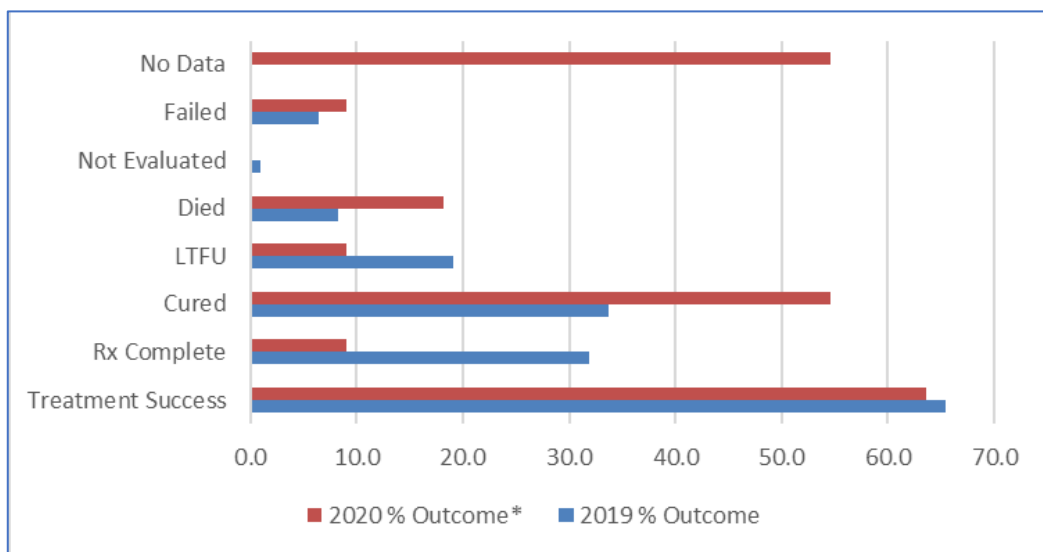


Figure 5. Treatment outcomes 2019 vs 2020

Duration of treatment was also assessed but with limitation in available data. We were able to obtain data for 2019 and partially 2020 cohort but not 2021 because some patients will still be on treatment at the time of data collection depending on start dates and duration of treatment. Of the 110 in 2019, 80 (73%) had treatment lasting between 1 to 2 years, 6 (5%) were treated for more than 2 years while 14 patients (13%) were on drugs for less than 6 months. We had no record for 53 patients in 2020; 24 (55%, n=44) were treated between 1 and 2 years while 12 (27%) were below 1 year. This shows an improvement but not conclusive due to the significant missing data. It is expected that these duration on treatment will reduce and there will be a need to compare the average treatment duration with the treatment outcome to measure quality of care service delivered to patients.

4.1.2. Project achievements against activities and service delivery outputs:

The following table provides a high-level summary of the consultant's assessment of extent to which the project activities were implemented during different stages of the project. The assessment was built based on project reports provided by MSF (annual, quarter, monthly and weekly report; beside other ad hoc reports including activity reports).

Table 3. List of activities implemented during different project stages

Table key

Activities implemented during the stage	Activities not implemented during the stage
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ACTIVITIES	INCEPTION	MATURITY	EXIT
Community awareness campaigns on DST and MDRTB with NTP			
Support tracing of contacts of MDR/ XDR TB cases			
Support other TBMU's for Genexpert diagnosis			
Support NTP with referral of suspected cases from health facilities and 'private' sector			
Logistic support and Lab rehabilitation			
Provision of lab reagents/ supplies to fill the gaps in the national supply system			
Lab Technical support by Expat MDRTB expert			
Support the lab to build a link with ITM for SNRL support			
IPC support and training (NTP TB clinic and Ibn Zuhr hospital)			
Support Ibn Zur hospital for hospitalization at initial stage			
Support Medical City for treatment with BDQ of MDR patients			
Support proper laboratories follow up of patients			
Lobby with NTP for increase of sites (decentralization of patients care)			
Support NTP pharmacovigilance system			
Provide pharmacy structural support			
Define patients support strategy - patient education and counselling			
Implement the patients support strategy			
Assessment for MH condition and train counsellor for minimal counselling support			
Follow up on nutritional assessment and for patients who needs nutritional support			
Advocacy on: (a) Impact on case finding using GX in TBMU's (and on who it is done); (b) New oral drugs, SE noted on BDQ - need for hospitalization or not? (C) Supplies.			
Activities to strengthen networking with NTP/ IOM, WHO and other partners			
Obtain approvals needed to conduct the research			
Training of staff participating in the study and continuous support			
Preparation of the study sites			
Negotiations Program of Collaboration (POC)			
Training of CRDC staff in selected sites			

Different project reports indicated some important considerations for the above assessment:

- The implementation of activities took longer time in Iraq context (change is slow).
- Despite of slow progress in first 2 years, the project completed several activities in 2020 and 2021.
- The program of activities was not budgeted in accordance with the planned project activities including the operational research. Adding to that, as the budget for DRTB was combined with the ER project, that contributed in less flexibilities to implement the activities.

4.1.3. Summary of achievements in service delivery:

Note: please see consider the analysis from previous sections to link it with this summary.

Table 4. Summary of achievements in service delivery

SERVICE DELIVERY AREA	EVALUATION SUMMARY
Laboratory	MSF has achieved the desired level of outputs and outcomes planned in this area. In general, the change strategy was successful in supporting achieving these results.
Support DRTB case detection	One of the main achievements under this project was the introduction of GeneXpert (GE) as first test for TB/DRTB diagnosis in Sadr city. The change strategy used for this component was successful.
Clinical management	This was the main focus of the project during the maturity and exit stages. The change strategy adopted by the project was successful and contributed to the observed achievements.
Patient support and improvement of adherence	The evaluation team found that MSF team has approached the support in this area in a very systematic manner. The strategies followed known to enhance patients' retention and adherence to treatment, as well as the overall treatment outcomes. However, the evaluation team was not able to assess the effectiveness of these strategies as part of this evaluation scope.
Operational research	The change strategy adopted by MSF for this component was not successful and has not contributed to the achievements of the project.
Infection prevention and control	The scale of activities in this intervention area was not large and did not have major contributions to the achievements
Capacity building	The training and capacity building activities have contributed directly and indirectly to many of the successful changes achieved by the project.

4.1.4. Project catalytic effects:

During the ToC workshop, the stakeholders emphasized the catalytic nature of the DRTB project. MSF has been implementing catalytic projects like the DRTB, there was a project implemented in Mumbai, India which has the same scope and relatively similar objectives⁶³. Evaluating such nature of projects and understanding how to assess the approach to design and implement effective strategy to produce the desired catalytic effect are part of the learning process for MSF.

Catalysis is the process of speeding up or slowing down a reaction using a catalyst that is not necessarily major element of the change process⁶⁴. Conceptually, a catalytic process may be seen as a chain of

⁶³ MSF (2021). Evaluation of the catalytic role of Mumbai project with regards to policy change (available [here](#)).

⁶⁴ Catalysis is something that speeds up a response without being eaten or modified. "Catalyst for political change," "catalyst for market change," etc. Finance or technical support can affect greater changes in political direction or policy, or in product markets. Catalysis is often associated with concepts like 'scaling-up', 'scaling-out', and 'replication' in the development industry. Many of these agencies pursue methods and techniques that are meant to have a bigger impact than the intervention itself (e.g., the idea of 'influencing'). For example, policy advice, lobbying and campaigning, information exchange and awareness raising, networking and capacity building are all examples of

activities (the catalytic strategy), in which different actors intervene at different times and with different immediate goals to further the results. Not all interventions go through each stage. UNDP GFF Evaluation office suggested the following conceptual framework of nine strategies for an intervention catalytic role by combining the stated objectives and outputs for projects from the operational strategy documents with the catalytic strategies and results⁶⁵. The evaluators adopted this framework to assess the DRTB project, and the table below summarizes the assessment.

Table 5. DRTB project approach to achieve the catalytic effect

STRATEGIES	How DRTB approach the catalytic effect (sub-strategies) *
Awareness	<ul style="list-style-type: none"> • Increase knowledge of MoH medical doctors about treatment options for DRTB. • Dissemination of project results.
Individual Capacity Building	<ul style="list-style-type: none"> • Enhancing technical skills of medical doctors and other clinical staff. • Resource management in the lab and clinics.
Institutional Capacity Building	<ul style="list-style-type: none"> • Establish standards and codes for providing clinical and laboratory services. • Develop partnerships with key stakeholders. • Support changing DRTB treatment policies. • Support the development of patients clinical database. • Support the national TB institution. • Support building the infrastructure of the NRL by providing the needed equipment. • Attempting to undertake research activities. • Ensure monitoring and enforcement of project activities.
Create demand	<ul style="list-style-type: none"> • Create demand for new treatment option. • Provide incentives for demand on the new treatment regimen.
Demonstration	<ul style="list-style-type: none"> • Introduce and support a new model of care. • Show demand and use for new treatment and model of care.
Pilot	<ul style="list-style-type: none"> • Model new concept or product in piloting mode.
Replication	<ul style="list-style-type: none"> • Promote techniques used by NTP to decentralize the approach in other sites.
Scaling-up	<ul style="list-style-type: none"> • No attempts to support the project scale up financially (only through technical support). • Incorporate project activities into government or agency.
Sustainable Activity	<ul style="list-style-type: none"> • Support local systems to deliver services.

* Important note: the above table attempts to summarize the strategies adopted by the project. Furthermore, it should be noted that the table is not intended to provide an assessment of whether or not these activities were carried out properly. Please refer to previous sections of this report for more elaboration.

catalytic tactics. Some agencies focus on change catalysts, such as innovation, where direct funding can introduce new ideas or techniques, which may lead to government, individual, or private sector partners scaling up.

⁶⁵ GEF Evaluation Office (2008). Conceptual Framework: Evaluation of GEF Catalytic Role. Available [here](#).

Project evaluations are often not explicit as regards to intended impact, although the project objective often refers to the intended impact of the health interventions. There are subtle differences between catalytic effects and impact. Catalytic effects are indeed a type of impact. The catalytic strategies discussed above are plausibly have produced the desired impact. However, the catalytic effects of DRTB project go beyond the intended results documented through the project objectives. For instance, the project aimed at improving diagnosis of DRTB; however, an important effect of the project was achieved through the strengthening of NRL and skills of the lab staff.

As elaborated in section 1 of this report, the project strategy did not appear to explicitly consider established knowledge about how to affect TB policy change, but it did provide valuable evidence about two factors that were widely considered to be critical for this to happen: evidence of the scope of the problem (DRTB in Sadr City, Baghdad); and evidence of successful policy interventions that could address the problem. While the policy gaps highlighted were important and appropriate, the Project did not aim to influence policy in all areas related to the TB program, instead of focusing on specific DRTB treatment regimens through advocacy and operational research. The reason for focusing on DRTB therapy rather than the Project's other clinical or community initiatives was unclear, and several stakeholders believed that opportunities to prioritise which specific policy gaps advocacy actions should be affecting had been lost.

4.1.5. Unintended effects:

The analysis from the limited background review and key informants' qualitative interviews do not demonstrate that the intervention had any unintended effect. Rather, the various stakeholders agreed that the intervention's outlined outcomes had not been fully achieved, due in part to the execution approach of the objectives.

4.2. PERFORMANCE INFLUENCING FACTORS:

E.Q. 4.2. What were the main enabling and challenging factors for achievement and non achievement of the objectives?

E.Q. 4.3. How did the project respond to the identified challenges?

Summary of findings:

- *Enabling factors for achievement of objectives included staff capacity building efforts, support to the lab and provision of personal support.*
- *Challenging factors for non-achievements of objectives included resistance to project, unclear goals, and objectives around DRTB program, and poor monitoring and reporting systems.*

The evaluators identified the following factors which have influenced the project's achievements:

Capacity building of healthcare staff and team

The MSF intervention provided capacity building, on-site training and workshops on diagnosis and clinical management of patients to NTP MDs and laboratory staff from NRL and CRDC in Baghdad and Rusafa respectively. To show replicability of program results and emphasize the achievability of the objectives, the MSF team invited global DRTB experts to coordinate several capacity building sessions to highlight key clinical outcomes as evidenced by best practices in their respective country programs. There was a general consensus from the stakeholders interviewed that evidence of success in similar DRTB programs was a motivating factor for the Iraq NTP and staff during the intervention implementation.

“I think one of the factors that convinced the NTP to come in was the South Africa program and realize, well, that it was already a program implemented.....Why not invite people from other region to show and potentially piggyback on some of the resources and then some of the support in a wave of sort of community of practice between different programs.”

Ex-MSF staff

Provision of lab supplies and drugs to support NTP

MSF's ability to procure and donate lab supplies and reagents i.e., GeneXpert machine and cartridges, first- and second-line drug reagents for drug susceptibility testing (LPA), and new DRTB drugs, bedaquiline and delamanid, was considered one of the enabling factors for achievement of specific project objectives. Shortages of GeneXpert cartridges and lab reagents were not uncommon and, in such situations, MSF handled the provision of TB drugs, cartridges and reagents to both the NRL and CRDC to ensure there was no diagnosis or patient treatment interruptions.

Provision of personal support to address socio-economic burden of DRTB on patients

The complexity of a DRTB diagnosis and management and the associated effects constitutes substantial financial issues to patients and their families. DRTB treatment have always been characterized by long, debilitating periods that affects the patient's ability to work or provide for themselves or their families. In Iraq, this was further exacerbated by the low socio-economic status of majority of the population. To ensure that financial burden did not affect patients' adherence to treatment and follow-ups, MSF provided patients with transport reimbursements and food baskets to alleviate any burden as a result of the DRTB treatment.

Lack of a comprehensive situational analysis at the initial stage of the project

It appears that MSF did not conduct a comprehensive situational analysis or similar activity to understand if there was an appetite for change before implementing the proposed intervention. Internal documents show that MSF did not conduct a needs assessment before beginning the intervention and that the project objectives were developed based on the WHO reported rates for Iraq. This as we've seen from the changing context of the intervention was highly insufficient to meet the objectives.

Perceived non-receptiveness and mistrust of project intentions from key stakeholders in Iraq

The introduction of the project to the Iraq NTP encountered initial resistance, which caused a long delay to the intervention timeline and subsequent changes to the intervention strategy and objectives. There was a serious misconception that the new drugs were harmful and both patients and physicians were hesitant to make use of them.

Limited human resources

There was limited NTP staff supporting the DRTB intervention. When MSF tried to provide the human resources to supplement, there was pushback from the NTP towards MSF providing staff to support those services. There was also a high turnover of MSF staff during the project which contributed to a disconnection between project components and further intensified the perceptions of local stakeholders on mistrust of project intentions.

“There’s limited human resources in the laboratory, so what’s recommended by WHO for in terms of the size of the lab, they have very few less than 50 percent of the resources that they needed.”

MSF mission staff

Disruption and subsequent cancellation of some DRTB intervention activities i.e., contact tracing due to the COVID-19 pandemic

In 2020, the COVID-19 pandemic caused major disruptions to health programs and systems around the world, including the MSF DRTB intervention in Iraq. The Iraqi government implemented several lockdowns between March and October 2020 to curb the transmission of the virus. An immediate effect of this lockdown was the stopping of one important activity, the contact tracing and case finding of contacts of DRTB patients. The inability of project staff to go into the communities to collect the sputum of high-risk patients for diagnosis meant there was a low uptake of patients compared to the expected cases. Subsequently, once the lockdowns were relaxed, this activity was never resumed.

Poor reporting systems and undefined monitoring indicators

Several gaps existed in the data collection methods and monitoring and evaluation systems utilized during the DRTB intervention to collect intervention outcomes. The project team relied on manual data collection and although not an incorrect data collection approach, there was no data quality assurance mechanism in place to verify the results being collected. Also, there was no central database for the NTP and so patients had to send their positive results through a social application (WhatsApp) to the doctor or bring their past results, past drug history forms and other DRTB documents to their appointments. This data collection approach leaves room for errors, inadequate and missing data.

Another factor that all stakeholders agreed was challenging to achieving project objectives was the issue of the specific objectives not being measurable and time phased. Although the MSF team introduced the idea of transiting DRTB patients in Iraq to the new oral regimen, there were no indicators i.e., how many DRTB patients did the intervention aim to reach in a defined period, to assist in measuring progress and determining the specified number of the target population to be transitioned to the new oral regimen. A significant number of health components or indicators for the intervention did not have a specified numerical outcome for treatment, coverage, and diagnosis making it unclear at what point the intervention began to engage the specified.

4.3. OPPORTUNITIES AND LESSONS LEARNED:

E.Q. 4.5. What could have been done to make the intervention more effective?

Summary of findings:

- *Improving advocacy, supporting replicable models of care, keeping focused on targets, and improving communications are the main areas where MSF could have done better as part of the DRTB project.*

The findings from this evaluation highlighted several areas that the project could have approached better to maximise its effectiveness in its context.. The suggestions include:

- Improved advocacy and engagement with local stakeholders and NGOs working in the DRTB program to ensure project outcomes sustainability after MSF ends the project.
- Development of a replicable decentralized model of care to be utilized by each governorate during the decentralization process.
- Redefinition of target population to include certain groups of individuals i.e., prisoners who were not included during project implementation.
- Effective and proper communication channels between MSF HQ team and staff in Iraq.

5. EFFICIENCY

Definition:

Efficiency is defined as “a measure of how resources and inputs (funds, expertise, time, etc.) are converted to results within the scope of this evaluation. Given the nature of the project, the evaluation judgment applied to the input-output link in the causal chain of the project. The evaluation team assessed project outputs measures – qualitative and quantitative – and indicates favorable outcomes and progress compared to suitable benchmarks and standards.”

This evaluation criterion focused mostly on using/allocating resources, such as human resources, equipment, and commodities, and the timeliness with which the project was implemented. While evaluation of efficiency may involve cost-effectiveness analysis, it is important to note that this evaluation did not pursue such an approach for evaluating the MSF DRTB project. Efficiency, under this evaluation, focuses on operational efficiency and ability to achieve policy changes efficiently, besides assessing the timeliness of project implementation. The evaluation aimed at utilizing a mix of qualitative and quantitative data available for the project team (mostly secondary data) and primary qualitative data collected through interviews with some key informants. However, there were challenges in obtaining enough quantitative financial data to assess the project's performance in-depth.

Main Evaluation Question #5:

How well and efficient the MSF DRTB project being implemented and adapted as needed?

The evaluation findings showed that the human, material and financial resources invested in the project (human resources, thematic capacity strengthening interventions) were adequate and mostly sufficient for reaching the initially planned results. While there were delays in the project's initial phase, the project managed to deliver on some of the expected outputs. We conclude that the project was efficient (Satisfactory).

5.1. HUMAN RESOURCES ALLOCATION:

EQ. 5.1. To what extent have resources been allocated strategically?

Summary of findings:

- *Resources allocation strategy and decisions to the DRTB project were fit-for purpose and aimed at maximizing value and reducing inefficiencies.*
- *MSF aimed to enhance project efficiency by deploying a lean project structure; however, this approach applied to this project has led to some challenges in ensuring adequate resources were available to implement the project effectively.*

From a design perspective, the project's scope and scale were considered a small-scale project. It has a highly focused geographical target and a limited number of patients expected to be served. The amount of human and financial resources invested or expected to be invested in the project was limited. The number of expatriate staff recruited by MSF for the project decreased between 2018 and 2022. It is important to note, however, that there was no sufficient locally available expertise in DRTB clinical management.

Given the nature of this project, the human resources management (HRM) was one of the essential management functions under this project. This subsection provides some observations on the HRM approach applied by MSF in this project.

The HR matrix of the project (technical professionals) was not planned. That included the timing and duration of the lab expat which doesn't correlate with the level of support that would have been provided.

One of the key issues that became apparent during the desk review and the interviews was the high turnover of the staff (mainly the project implementers in leading roles). There was a lot of employee turnover in the project, for both national and international staff. The evaluators consider this frequent change had somehow contributed to challenges faced the project implementation, as this factor has a direct or an indirect effect on strategy development and implementation.

The deliberations during the ToC workshop on project design revealed that the project staff has not received an adequate level of orientation on skills related to handling resistance and applying change management skills, which was one of the key profound competencies needed to manage projects such as MSF DRTB project. While engagement of international senior MSF experts (from different MSF global units) was clear and evident, the support provided to project staff did not include hands-on guidance to apply techniques and strategies required to handle challenges encountered during the project's inception phase. For such kind of projects, it is important to support the project change agents (like MD in this project) with appropriate change management skills and competencies and to work closely with them to ensure that they manage relationships in a successful manner.

It was clear that the Medical Coordinator (MedCo) played an essential role of presenting the project to stakeholders. Their role was also essential for coordinating the medical operations related to the project, including the aspects related to ensuring availability of drugs and other commodities. The medical doctor (MD) role in this clinic was to see patients with the chest physician, to support the diagnosis, follow up on recommendations (both diagnostic and treatment algorithms). The main role was to make sure all presumptive TB cases were tested with GeneXpert and all RR cases were linked to medical city for enrolment to DRTB care. As such, these roles were very fundamental to achieve the project objectives (beyond the component of changing the treatment regimens). Despite its importance, this position witnessed frequent changes during the project implementation. While the role the MD played was crucial, the scope of the project was not clear to all the MDs who contributed to the project. Documents review as well as interviews confirmed this observation, which indicates a gap in communicating the vision and mission of this DRTB project to the field staff. The project started with a TBMD being the only staff having TB/DRTB experience and most of the support came from the technical referent in SAMU and Mission medical coordinator. It was suggested that a Medical Activity Manager (MAM) or Project Medical Referent (PMR) with TB experience would have been a better option to start the project in addition to the Counselor at the earlier phase and the projects could have been separated. MedCo was acting PMR for TB project until PMR arrival. Field Coordinator position was closed and replaced by PMR position. It was not clear how these two positions played a role in support the DRTB project and its implementation. It seems like remote support from TB medical reference (based in SAMU) was provided as a solution for that gap.

5.2. FINANCIAL RESOURCES OPTIMIZATION:

EQ. 5.2. To what extent did the coordination with other MSF projects in Iraq has reduced the transaction costs, optimized results and avoid duplication?

EQ. 5.3. Did the project's activities overlap and duplicate with other similar interventions?

Summary of findings:

- *MSF adopted different strategies to optimize the use of resources; however, these have also contributed to some limitations in ensuring all the required resources to support the project were allocated in responsive manner.*

MSF OCB Cell decided to increase the efficiency of project's spending through adoption of a shared management structure with the ER project. The DRTB project did not has a separate budget or management line, and until late in 2020; the project has not been separated from the ER project. However, there were some observations the evaluation team gathered during the data collection, these include:

- *This approach might have contributed to some challenges faced by the Medical Coordinator in providing more targeted support.*
- *The scope of the DRTB project there was no complex components or interventions more than the clinically oriented interventions. This also contributed to low level of resources required for the project.*
- *Having one team taking care of two completely different projects might have played a role in giving priority more for the ER in addition to another project in Mosul.*
- *There was no clear separate operational document created for the TB project and the one available was together with the ER project. Moreover, context assessment and culture of NTP/MoH about research was not analyzed.*
- *As the project shared the same budget centre as the ER project, it was not easy for the evaluation team to establish how much of the budget was dedicated to equipment procurement, although this budget category represented more than 42% of the total project actual expenditure.*

Figures 6 and 7 below provide an aggregated analysis of the project budget and expenditures during the 2018 and 2020 periods. Given the limitations of this financial data, it was not possible to generate any observations or conclusions about this area.

Figure 6. Budgeted Vs Actual Cost Per Cost Inputs (per year: 2018, 2019 and 2020)

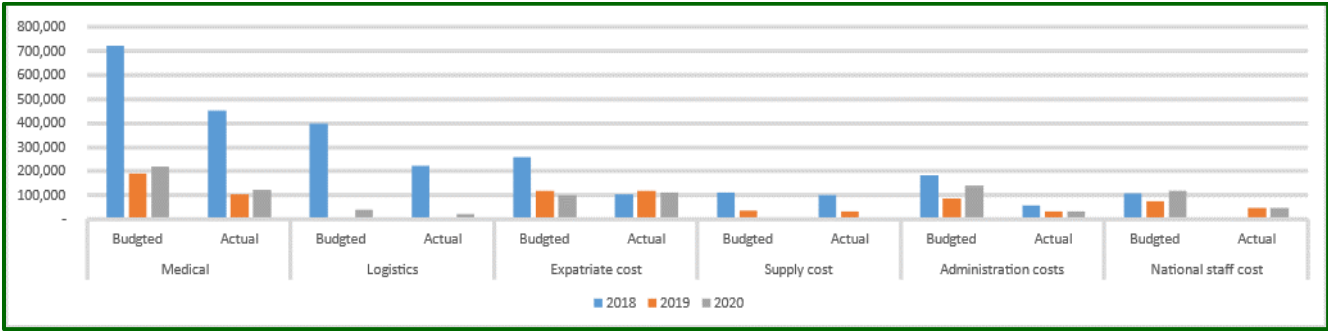
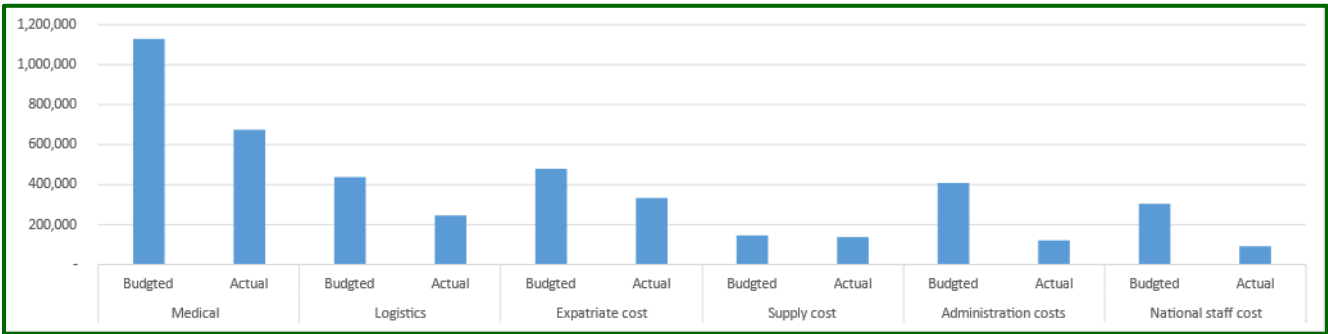


Figure 7. Budgeted Vs Actual Cost Per Cost Inputs (total 2018 to 2020)



5.3. IMPLEMENTATION EFFICIENCY:

Summary of findings:

- Despite the delays in the initial phase, the project team adopted a modified implementation strategy that contributed to enhance the operational efficiency of project implementation.

EQ. 5.4. Was the project implementation approach efficient for delivering the planned project results?

According to examination of project records and input from key informants, data showed that, despite the early delays, the project was completed on schedule. Despite some severe deficiencies found by the study, MSF's methodology enabled the project to offer services. If the project had contemplated establishing parallel structures/a vertical strategy, it would have taken significantly longer to achieve its goals, and MSF may not have been able to implement it due to its short-term engagement in the implementation. One of the main advantages in the project was the fact that MSF did not establish a separate clinic, but rather it has provided support to existing MoH DRTB clinic. This has contributed to efficiency of the project implementation.

The findings of this evaluation around the approach and process to achieve the intended policy changes indicate a mixed picture from an efficiency perspective. While the intended policy changes were achieved during the maturity phase of the project, the process to achieve these changes was inefficient as the project team could have better adapted different pathways. That highlights the importance of adopting a coherent project design aligned with the needs, good identification of aspects targeted for change, and adoption of the right change strategy.

EQ. 5.5. Was the project implementation delayed?

From the initial interviews with the Evaluation Consultative Group, the evaluation team noticed a significant delay in the actual implementation of the project. That was also clear from the project documents.

The main obstacles to timely delivery were delays in granting the permission by the Iraqi ethical review board, which led to the operational research being halted. Towards the end of the inception phase (end of 2019), MSF project team has focused more on activities that help reset the project and keep it on track. The HOM introduced different internal and external changes on how the project was implemented. The evaluation team observed the significance of these changes on the trajectory of progress made by the project in the period followed. The change in perspective and how MSF project team interacted with the government counterpart, as well as critical thinking, were essential to support the project implementation and observed as an important triggering point through the project cycle.

One of the lessons learned documented by the project team is the fact that “operational decision makers should be aware that, technical support and policy changing projects like DRTB Iraq project, need considerable time to achieve the objectives. Make sure expats are briefed on this expected delay.”⁶⁶.

Another issue noticed by the project team was the time it took to get the medications and equipment. Furthermore, the COVID-19 pandemic impacted many of the operations scheduled at the start of the project.

⁶⁶ MSF (2021). Annual project report.

CONCLUSIONS

The evaluators identified some of the cross-cutting conclusions about the project. These include:

While the project was highly relevant to its context in Iraq, the evaluation results highlight the importance of conducting a comprehensive needs assessment prior to the start of the advocacy-focused project. These assessments are important as they are linked to the ability of the project team to adopt the right assumptions about the project context and by connecting the needs and how MSF can respond to these needs to a good understanding of all potential influencing factors that would likely affect the results and outcomes. Articulating the outcomes of the assessments into clear objectives and measurable expected outcomes is crucial for successful projects. The ToC development process is important in this regard. It can help to clarify the appropriate change process for targeted issues and develop a clear set of assumptions and risks on how this change process will evolve through time and the implantation.

Linked to the first point, this evaluation helped establish different influencing factors that hindered or supported the DRTB project implementation (mainly on how the project will be implemented and received by the stakeholders). During the planning stage, such factors should have been considered key assumptions behind MSF's strategy. MSF project team should continuously monitor these factors and assess their impact on the project.

A challenging partnership environment characterizes Iraq's context. It is not easy for non-governmental organizations to operate and intervene efficiently without well-planned relationships building efforts to build trust. The evaluation results of DRTB project indicates the importance of early engagement of MSF mission leadership to support the introduction and initiation of projects. The initiation phase should be considered an opportunity for MSF leadership to communicate a clear vision of what and how MSF consider changing the problems. This engagement needs to occur through the chain of command in the government counterpart, and it should include politically appointed people, those in management positions, and those with technical authority.

Catalytic projects are different in design and implementation approaches compared to service delivery projects. MSF needs to establish clear distinction strategies for designing and delivering both types appropriately. Building a clear change strategy to achieve the project objectives is essential. The approach adopted to implement the DRTB project in Iraq assumed that the project should be delivered with a service provision mindset; however, as it was catalytic, that required a different implementation strategy (including a well-informed advocacy strategy).

Iraq has fragile governance systems and structure, which requires great flexibility to manage and deliver projects. The agile project management approach adopted by MSF for the DRTB project was appropriate and helped maintain the project's relevance and engagement with partners. The evaluation established a mixed dynamic in terms of who makes the decisions about changes in the project (objectives, scope and strategy). While the engagement of MSF central units was very crucial

for the success of the DRTB project, it was essential that the project team be empowered to make autonomous decisions to adopt the changes they see appropriate to the country's context. On other hand, it is important to ensure assigning project coordinators with the adequate profile for such kinds of sensitive projects.

MSF's HR sourcing approach was one of the main factors contributing to the DRTB project implementation process and outcomes. For any project, HR sourcing is an 'internal' factor that MSF was able to manage and modify to fit the context. The evaluation of the DRTB project revealed the importance of recruiting staff who can understand and deal with the context and apply an appropriate approach to manage change and deal with resistance. Adopting a good and fit-for-purpose human resource matching is critical in a country like Iraq.

LESSONS LEARNED

The MSF DRTB project in Baghdad, Iraq, has provided an opportunity to learn. Multiple lessons learned have been documented in this evaluation report, some of these include the following key points:

⇒ **LESSON LEARNED 1:**

It is essential to conduct a comprehensive needs assessment before the commencement of the project targeting advocacy efforts. The success of the projects will be highly determined by good identification of contextual issues, the right stakeholders to approach during the implementation, and which change pathway to follow to achieve the objectives.

⇒ **LESSON LEARNED 2:**

With support from central units, the MSF mission should devote more attention to new catalytic projects during their initial stage. This stage is critical as it is usually affected by multiple external factors that may influence the implementation trajectory. During this stage, the project team should focus on developing a written advocacy strategy and change strategy document. These strategies will help in elaborating more than one scenario to bring targeted change, set clear assumptions, identify risks and potential resistance that may hinder the ability of the team to achieve the objectives and have mitigation measures in place. Provision of training opportunities for MSF staff on handling resistance will be a good investment to overcome potential challenges for new projects.

⇒ **LESSON LEARNED 3:**

The early engagement of MSF mission leadership to support the introduction and initiation of projects is inevitable. This engagement needs to occur through the chain of command in the government counterpart, including the engagement of high-level officials, and it should include politically appointed people, those in management positions, and those with technical authority. The initiation phase should be considered an opportunity for MSF leadership to communicate a clear vision of what and how MSF consider changing the problems.

⇒ **LESSON LEARNED 4:**

For projects that focus on tuberculosis specifically, the project team needs to start with more comprehensive support to TB/ DRTB in a new catalyst project; for buy-in and ensuring the efforts from the medical staff employed with MSF are well integrated into the program to achieve clear results.

⇒ **LESSON LEARNED 5:**

Project success towards its objectives is measured through accumulated achievements; however, the results should be measured against clear and measurable outcomes. The effectiveness of the project could be demonstrated at different levels of the results chain. This results chain should consider both short- and long-term targets, which are essential to measuring the project performance.

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ANNEXES

ANNEX 1: TERMS OF REFERENCE

ANNEX 2: EVALUATION MATRIX

ANNEX 3: PROJECT THEORY OF CHANGE

ANNEX 4: DETAILED METHODOLOGY

ANNEX 5: LIST OF KEY INFORMANTS

ANNEX 6: EVALUATION RUBRIC

ANNEX 7: DEEP DIVE ANALYSIS ON THE ENGAGEMENT WITH LOCAL PARTNERS

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