ENHANCING ACTIVE CASE FINDING AND EARLY CASE DETECTION THROUGH CONTACT SCREENING IN THREE ENDEMIC DISTRICTS UNITED REPUBLIC OF TANZANIA 2016–2018

FINAL PROJECT EVALUATION

November 22nd to December 3rd 2021

Report

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Abbreviations

BDSF	Bangkok Declaration Special Fund
CHMT	Council Health Management Team
CHOP	Council Health Operational Plans
CCHP	Council City Health Plan
CHWs	Community Health Workers
DTLC	District Tuberculosis and Leprosy Coordinator
GLRA	German Leprosy and Tuberculosis Relief Association
G2D	Grade 2 disability
MDT	Multidrug therapy
M&E	Monitoring and Evaluation
MoHCDEC	Ministry of Health, Community Development, Gender, Elderly and Children
NTD	Neglected tropical disease
NTLP	National Tuberculosis and Leprosy Programme
OPD	Outpatient Dispensary
PAL	Person/people affected by leprosy
POD	Prevention of disabilities
RHMT	Regional Health Management Team
RTLC	Regional Tuberculosis and Leprosy Coordinator
Tanzania	United Republic of Tanzania
TB	Tuberculosis
TLA	Tanzania Leprosy Association
WHO	World Health Organization

1. Background information

In 2013, when the Bangkok Declaration was signed by Mr Yohei Sasakawa and Ministers of Health of leprosy high burden countries, Tanzania was reporting 2,005 new cases of leprosy and categorized in the group of seventeen countries in the world, that were still reporting more than 1000 new cases of leprosy annually (Leprosy high burden Group B).

In 2014, the country has reported 1947 new cases and 65% were contributed from few endemic districts.

Despite achieving the World Health Organization's (WHO) target of leprosy elimination as public health problem (a prevalence rate less than 1 case per 10,000 population at national level) in 2006, following the introduction of multi-drug therapy (MDT) in early nineties, the high burden districts were partly responsible for the failure of reaching leprosy elimination target at the sub-national level. The 2014 National prevalence rate was 0.35/10,000 population but 18 districts in the country still report a prevalence rate above the elimination threshold. The proportion of multibacillary (MB) forms, female, and children were 81%, 36% and 5% respectively. During the same reporting year, the leprosy disability ratio was over 5.5 cases per million population (12% among new cases). **For the past ten years the G2D rate among new cases has remained high (above 11%).** Tanzania may not meet the global elimination target of reducing the occurrence of new cases with visible deformities or grade 2 disabilities (G2D) to less than one case per one million population by 2020 as stated in the Bangkok declaration due to an interplay of factors.

People affected by Leprosy- (PALs) are still stigmatized and discriminated in the community. In some instances, people believe that the disease is inherited within families. Most leprosy patients first visit traditional healers, causing a lot of delay to access medical care. As a result, Tanzania continues to observe high levels of G2D at the time of diagnosis.

After achieving elimination targets at the national level, leprosy was removed from the list of diseases of public health importance. As a result, there is less political attention and consideration for continued financing. These gaps have led to less awareness among frontline health care providers as well as community. Subsequently minimal participation of PALs and community in leprosy control activities especially in high endemic districts has been observed.

Tanzania is currently using only passive case finding approaches to identify leprosy suspects. This practice also contributes to diagnostic delays. At the same time, there has been no innovative means of taking advantage of the existing structures of PALs or other related national programmes such as NTDs, school health programme and community-based groups to participate in identifying new leprosy cases at early stages or in rehabilitation. Moreover, retrieval of cases among the contacts of diagnosed index cases is only done passively by health facilities and not well monitored.

The external NTLP review, conducted in February 2014, revealed that most health workers had inadequate knowledge on leprosy case management and control. None of the health workers in the visited sites had received training on leprosy during the last seven years. Furthermore, both NTLP routine supervision

reports and GLRA monitoring reports in recent years have indicated that the gap is increasing. There is a growing demand for innovative measures to further reduce the risk of spreading the disease especially in endemic districts.

In 2016, Tanzania was granted a three years project **"Enhancing active case finding and early case detection through contact screening in three endemic districts of Tanzania**." supported by Bangkok Declaration special fund (BDSF). This project aimed to ensure early leprosy case finding and treatment in order to interrupt the chain of transmission especially among

household members of index cases. It should also result in a dramatic reduction of the G2D proportion among new cases. The proposal is built in line with the WHO Enhanced Global Strategy for Further Reducing the Disease Burden due to Leprosy (2011–2015) and the Global Leprosy Strategy 2016–2020 "Accelerating towards a leprosy-free world"; as well as the National Strategic Plan for Tuberculosis and Leprosy Control, 2015–2020. This will further reduce the burden of leprosy in the in the three targeted endemic districts of **Chato, Mkinga and Muheza**. It was implemented for three years (2017 to 2020), targeting the three districts classified as leprosy high burden sub-national levels.
At the completion of its implementation in 2020, a final evaluation is proposed to assess the outcomes and achievement of above-mentioned objectives.

2. Objectives of the project

2.1 Overall objective

The long-term goal of the project is to achieve the leprosy elimination target of less than 1 case per 10 000 population and reduce levels of G2D among new cases in three high endemic districts.

2.2 Specific objectives

There were two specific objectives (SOs) as follows:

i. To increase new leprosy case detection in the targeted districts through strengthening active case finding, early diagnosis and treatment and decrease disease transmission by 50% by 2018.
ii. To strengthen the leprosy monitoring and evaluation (M&E) system to ensure an efficient and timely collection of quality data.

3. Performance indicators

- Leprosy eliminated in the targeted endemic districts (Prevalence Rate < 1/10,000).
- Significant decline in the G2D proportion among new cases detected (G2D <11%).
- Number of sensitization meetings conducted.
- Number and proportion of contacts screened.
- Number and proportion of new leprosy cases detected and put on treatment.

4. Objectives of the evaluation

The objective of this final review of the project is to assess its contribution towards elimination of leprosy in targeted areas. Specifically, it is to:

- Assess the status of implementation of activities carried out and the outcomes
- Assess the impact of the training on the cases detection and cases management in the target areas
- Ascertain the achievement of the project objectives in Tanzania
- Present the lessons learned during the implementation of the project
- Formulate recommendations

5. Methodology

The final assessment of the project was conducted from 22nd November to 3rd December 2021 under the responsibility of WHO, in collaboration with the Ministry of Health. The method was adapted from AFRO guide on the monitoring and evaluation of case management

neglected tropical disease programmes. This assessment was also included yaws in suspected or potential co-endemic areas.
The method included a stakeholders meeting. During this meeting, the districts and the health facilities to be visited were selected. The data collection tools, and the visit agenda were validated.

The evaluation was conducted by two teams including:

- The National officials from the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDEC) of Tanzania
- The National Tuberculosis and Leprosy Programme (NTLP) and
- The World Health Organization (WHO) (Country Office and Regional Office).

See the team composition in the relevant annex.
The evaluation was conducted by way of field visits to two (Mkinga and Muheza) out three targeted districts and two districts not targeted by the BDSF (Singida and Ikungi)
The report was prepared, and the findings presented and validated during a stakeholders meeting on 30th December 2021.

6. Summary of project activities

The main project activities are summarized in the table below

Table I : Main project activities by intervention strategy

Objective	Activities	Completed (Yes/No)	Comments
Objective 1: To increase new leprosy case detection in three districts through strengthening active case finding, early diagnosis and treatment and decrease disease transmission by 50% by 2018	Conduct house-to-house screening of the contacts of registered index cases and refer leprosy suspected individuals.	Yes	Some missed appointments
	Support printing of leaflets, posters and job aids, on contact identification	Yes	
	Train community volunteers (PALs, TLA members, ward POD committee members, village health workers and frontline health care providers from respective health facilities) on leprosy index case contact identification and screening	Yes	Delay of funds from WHO
	Support community volunteers to conduct active case finding through contact tracing in highly affected communities in the three districts for three years	Yes	Delay of funds from WHO
Objective 2: To strengthen leprosy M&E system to ensure an efficient and timely collection of quality data	Conduct additional supportive supervision of field activities in three leprosy endemic districts.	Yes	Delay of funds from WHO
	Contribute to administration and coordination costs of field activities for one year.	Yes	Delay of funds from WHO

7. Results

7.1 Key findings

In the Districts in which the project was implemented, the prevalence rate declined between the two periods (before versus during the implementation) of the project. It was under 1/10,000 inhabitants in the period of the implementation of the project and remain at this level in 2021.

There is a high proportion of G2D and child cases in the two districts, mainly in Muheza, meaning of *active transmission occurring in this district.* However, in 2021, one Child case was detected in the low endemicity region of Singida.

All patients get regular free treatment and are cured in timeline in all districts. MDT is provided on a flexible way for all patients. However, patients still face monthly transport costs.

In the two districts covered by the project, MDT is available; drugs shortages have been noticed in two of the four centers visited in the low endemic region.

The assessment of the knowledge of the health workers showed a higher score in the district of the project compared to others

7.2 Strengths

Specifics strengths related to the implementation of the BDSF project are as followed:
In the districts of the BDSF project, compared to other,

- There is minimum will among administrators to integrate leprosy with other programs, especially by combining TB activities with leprosy ones.
- Heath workers had sufficient knowledge
- Contact tracing is performed and well documented by the community health workers and in health centers
- Community health workers have recently increased cases notification
- The diagnosis is well performed
- All patients get free and regular treatments and are cured in timeline
- In all centers, the DHIS 2/ETL system is well organized, filling patient-based data which are mostly up to date.

7.3 Weaknesses

Some weaknesses of the overall system have been highlighted from the combination of the BDSF project evaluation with the country's leprosy situation assessment. We summarized here the most important:

- There is no specific or inadequate fund allocated for leprosy activities in all districts and no NGOs supporting leprosy activities.
- None of the districts or the region indicated active participation of people affected by leprosy (PAL) in the planning and implementation of leprosy programmes
- There is, at operational level, no, or limit mechanism in place for real-time data use for decision making for leprosy epidemiology and post-treatment surveillance.
- None of the districts/municipalities use digital mapping
- There is no data on referral cases for assistive products
- There is an inadequate prevention of disability services, especially in the selfcare implementation

- Despite the fact that there is a national PAL organization for self-help and advocacy, this organization is not well established at regional or council or district levels.
- In the low endemicity region
  - There is an inadequate knowledge on leprosy in health care providers, due to insufficient trainings to capacitate health staff with knowledge on quick diagnosis of leprosy, absence of job aids on leprosy apart from NTLP guidelines of 2013
  - There is a lack of training of CHWs on leprosy that could have led to less suspicious for leprosy cases in communities to facility level
  - Contact tracing is not implemented fully
  - There is no active leprosy case finding in councils
  - Stigma index is still high (especially at community level).
  - There is a little community involvement, effort, and participation in leprosy programs.

7.4 Challenges

From the above, many challenges must be address in order to improve the way toward leprosy elimination.
There is a need to

- establish a mechanism to get specific funds (local or through partnership) addressed for leprosy activities
- increase knowledge on leprosy in health care providers, especially on early signs, diagnosis, treatment, management of reactions, allergy and complications, self-care
- reduce the proportion of MB and G2D
- improve the capacity of CHW in providing awareness of leprosy to the community
- increase awareness of the community on leprosy disease.
- further reorganized the prevention of disability services, including reinforcement of selfcare
- address stigmatization issues

7.5 Recommendations

Addressed to the Ministry of Health

- To Develop an NTDs master plan, integrating leprosy as a component of NTDs. The presence of a strategic plan will direct the mobilization of leprosy local resources
- To enhance the country commitment on leprosy funding to support leprosy elimination interventions
- To include leprosy interventions in Council City Health Plan and Council Health Operational Plans

Addressed to the TB and Leprosy Program

- To attract NGOs to support leprosy activities and complement government efforts.
- To integrate leprosy in other NTDs programs and interventions to support implementation of activities.
- To improve Health Care Workers and Community Health Workers in the general system knowledge on leprosy using various strategies, including on job training and general basic training of health workers
- Establish care screening services at outpatient dispensary in high volume health facilities
- To increase awareness on leprosy and others NTDs especially in communities and general health system
- To include leprosy in school health programs

- To include leprosy in CHWs training and implementation packages
- To integrate leprosy services with NTD and other community groups
- To extend and generalize early detection activities (active case search, contact tracing, training of health workers and community members in all high endemic districts (Special focus should be made on Muheza (where ongoing active transmission proven), and Manyoni, which seems to be more endemic than it seems
- To design and implement active (house to house) case finding activities in classified "low endemic districts", in order to confirm low endemicity
- Strengthen outreach services to the hard-to-reach areas.
- To implement advanced strategy for MDT delivery to patients, in order to reduce for them transport costs
- To organize and implement selfcare strategy at country level. That could include establishment of selfcare groups where it doesn't exist and support the existing one.
- To strengthen referral services for leprosy complications
- To develop an advocacy, communication and social mobilization strategy, to raise awareness of the disease in the community, and address stigma among other needs.
- To involve political, influential and traditional healers to understand and sensitize communities on the need to prevent and control leprosy in communities.
- To develop an Action Plan and forum to guide research on leprosy
- To improve medicine supply chain in low endemicity regions
- To capacitate HCWs on Leprosy and mental health.
- To educate PAL on their rights.
- To create awareness for positive discrimination.
- To establish mandatory surveillance and case detection at Community level
- Association for PAL are a good source of advocacy and support to those affected if they are live and effectively utilized at region and district levels.

Addressed to WHO

- Advocate at the level of the Sasakawa health Foundation for the continuation of the project and the extension to other districts
- To support the country in the Development of an NTDs master plan, integrating leprosy as a component of NTDs
- To advocate with the government for an increase in local funding for the fight against leprosy
- To advocate with other NGOs to support leprosy elimination activities in Tanzania and complement government efforts

8. Conduct of the mission

The mission was carried out jointly with an overall evaluation of the country's leprosy program, within the framework of the GPZL's "towards zero leprosy" vision. The BDSF project evaluation teams therefore joined those of the GPZL evaluation.

The start of the mission was marked by a courtesy visit to the director of preventive services, to whom the objectives of the two assessment missions were presented, and by a visit to the premises and the technical team of the NTLP coordination.

Following this visit, a planning workshop was held with all the actors of the two assessment missions to be conducted together, at the "Naresh Hotel" in Dodoma. The teams then

separated for field activities, according to the schedule presented under the next "agenda" sub-item. In each region, the teams paid a courtesy call to the :

- Regional Medical Officer
- Regional TB & Leprosy Coordinator (who then joined the team for the field visits)
- City or District Medical Officer of Health
- District Tuberculosis and Leprosy Coordinator, with whom most of the investigations were then conducted
- DOT Nurses, who were interviewed
- The team also met some patients, who were reexamined and interviewed

For the BDSF project, two teams were formed. The team A visited the high endemicity region (Tanga) targeted by BDSF project: Tanga City Center of Ngamiani, the Maramba HC in Mkinga DC, and the Muheza DDH, in the Muheza DC.
The Team B visited the low endemicity region (Singuida) non targeted by BDSF project: the Ikungi Health Centre in the Ikungi DC, the Ilongelo Health Centre in the Singida DC, Sokoine Health Centre in the Singida MC, and the Manyoni District Hospital, in the Manyoni DC.
(see Annex)

8.1 Conduct of the mission by Team A

The Team A visits three Districts, and in each, the main district hospital, where leprosy case management is centralized. These were Ngamiani HC in Tanga City, Maramba HC in Mkinga District and Muheza DH in Muheza District.
At arrival in the region, the team first pays a courtesy visit to the Regional Medical Officer and discussed with the Regional TB & Leprosy Coordinator (RTLC) about the overall organization of the field visit.
In each district, the methodology was the same. The team, first pay a visit courtesy to the District Medical Officer and Medical Officer of Health center, then breaked in three subgroups. One subgroup goes through the registers in order to collect the data for the calculation of the indicators, to check their adequacy and completeness, to check the availability and organization of drugs. The second subgroup conducts interviews with patients and health workers, re-examining patients and calculating the knowledge score. The third subgroup conducts interviews with the community members.
A compilation of data followed by a summary of the main findings is carried out at the end of the day. Only Mkinga and Muheza participates in the BDSF project. However, this report presents the main findings in the three centers visited.

8.2 Conduct of the mission by Team B

The team B visited four councils in Singida.
Interviews were conducted to the Regional Medical Officer, RHMTs, CHMTs, health personnel, leprosy patients, and members of the community.
Registers were also checked for completeness and accuracy.
During these visits, all GPZL assessment tools were utilized. Furthermore, the team used BDSF tools purposely to compare interventions, accomplishments, and obstacles observed in BDSF-supported districts vs the non-BDSF-supported districts.

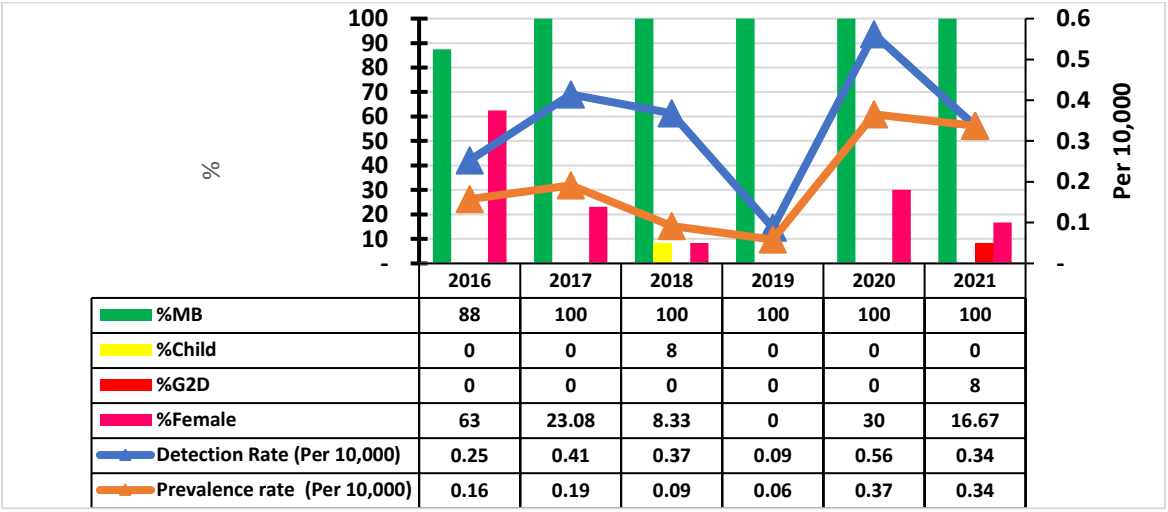
9. Results of the data collection

The mains finding are described in the following.

9.1 High endemicity region (Tanga)

9.1.1 *Trends of main leprosy elimination indicators*

9.1.1.1 Tanga City (Ngamiani HC)



	2016	2017	2018	2019	2020	2021
%MB	88	100	100	100	100	100
%Child	0	0	8	0	0	0
%G2D	0	0	0	0	0	8
%Female	63	23.08	8.33	0	30	16.67
Detection Rate (Per 10,000)	0.25	0.41	0.37	0.09	0.56	0.34
Prevalence rate (Per 10,000)	0.16	0.19	0.09	0.06	0.37	0.34

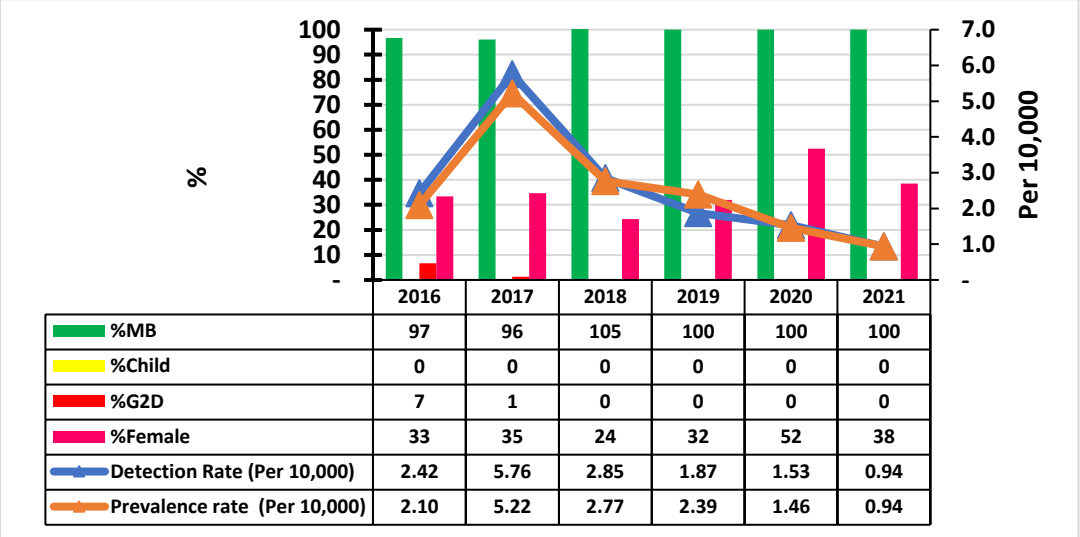
***Figure 1** : trend of the main leprosy elimination indicators in the Ngamiani HC (Tanga city)*

The detection rate remained under 1 per 10,000 inhabitants in the district on all the period. However, two phases can be distinguished. From 2016 to 2019, there was a first increase of the Detection rate, followed by a decrease. In 2020 an increase of the detection rate was observed.

The proportion of MB remain high during all the period (>80%). G2D was observed only in 2021.

The trend of female cases followed the general one. 8% child cases were detected in 2018.

9.1.1.2 Mkinga DC (Maramba HC)



	2016	2017	2018	2019	2020	2021
%MB	97	96	105	100	100	100
%Child	0	0	0	0	0	0
%G2D	7	1	0	0	0	0
%Female	33	35	24	32	52	38
Detection Rate (Per 10,000)	2.42	5.76	2.85	1.87	1.53	0.94
Prevalence rate (Per 10,000)	2.10	5.22	2.77	2.39	1.46	0.94

Figure 2 : *trend of the main leprosy elimination indicators in the Maramba HC (Mkinga)*

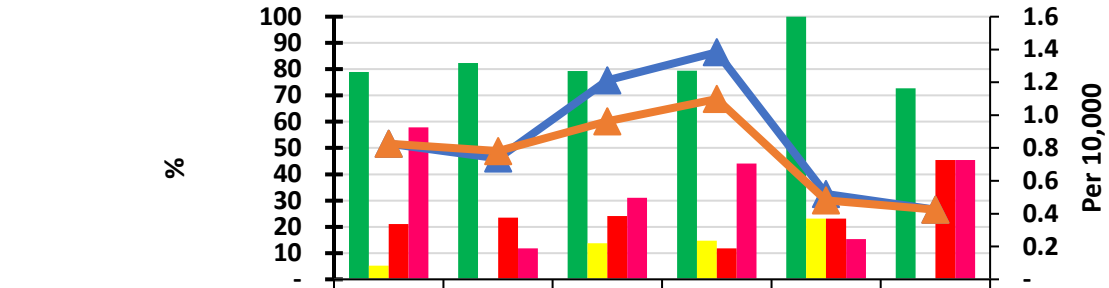
The detection rate (DR) and the prevalence rate (PR) increased highly from 2.42 and 2.10 per 10,000 in 2016 to 5.75 and 5.22 respectively in 2017 then both indicators decreased progressively to 0.94 in 2021. The increasing observed in 2017 could be link to the first year of the implementation of BDSF project activities.

Even if 2021 is not finished, it is great that the prevalence rate falls below the threshold of 1 per 10,000 inhabitants in this district.

The proportion of MB remained high during all the period (>80%). G2D were observed only in 2016 and 2017.

An average of 30% of female cases are detected each year. No child case was detected during the period.

9.1.1.3 Muheza DC (Muheza DDH)



	2016	2017	2018	2019	2020	2021
%MB	79	82	79	79	100	73
%Child	5	0	14	15	23	0
%G2D	21	24	24	12	23	45
%Female	58	12	31	44	15	45
Detection Rate (Per 10,000)	0.83	0.74	1.21	1.38	0.52	0.42
Prevalence rate (Per 10,000)	0.83	0.78	0.96	1.10	0.48	0.42

***Figure 3**: trend of the main leprosy elimination indicators in the St Augustado DDH (Muheza)*

The detection rate increased between 2018 and 2019 (More vs less than 1 per 10,000 inhabitants compared to the others periods). Same for the prevalence rate, that increased in 2019. Even if 2021 is not finished, it is great that the prevalence rate falls below the threshold of 1 per 10,000 inhabitants in 2020 and sustained till December 2021 in the district.
The proportion of MB remained high during all the period (≈80%). The proportion of G2D remained high on all the period.
The proportion of female cases detected is variable.
There is a very high proportion of child cases detected each year, meaning that there are active transmission occurring in Muheza.

9.1.2 ***Patients' management***

9.1.2.1 Tanga City (Ngamiani HC)

The number of patients under treatment at the date of the visit was 12, all MBA. In 2019, 3 MB patients were put under treatment. All of them cured.
During the visit, three patients were interviewed and reexamined, including 2 female and 1 Male, all adults, and 2 new cases

Leprosy diagnosis is confirmed for both and all of them were MB cases. Two of them had grade 1 disability at the time of the diagnosis, but no disability observed at the time of the visit. The diagnosis delay was respectively 6, 12 and 18 months. All of them get regular MDT, and one out three was already declared cured (treatment completed). They all followed a flexible mode of treatment follow up, and comes monthly to take their drugs. However, the distance covered by the patient to take the MDT was respectively 2, 5 and 25 kms, implying cost for transport ranging from 1000 to 2500 TZS (0,50 US$ to 1.1 US$) for the patient. None of the patient pay any cost for screening or MDT. One of the patients had a type 1 reaction, well managed in the center. Non allergy had been reported by the patients.

9.1.2.1 Mkinga DC (Maramba HC)

The number of patients under treatment at the date of the visit was 32, all MBA. In 2019, 25 MB patients were put under treatment. All of them have cured.
During the visit, four patients were interviewed and reexamined, including 3 female and 1 Male, all adults, and one new case

Leprosy diagnosis is confirmed for all of them and all were MB. Two of them had grade 2 disability at the time of the diagnosis, which persists. The diagnosis delay was respectively 2, 2, 4 and 12 months, as declared by patients. However, all declared having visited several health facilities where the diagnosis was not made, before being referred to the leprosy care center. All patients get regular MDT, and 3/4 were already declared cured (treatment completed). All followed a flexible mode of treatment follow up, and comes monthly to take their drugs. However, the distance covered by the patient to take their treatment varies from 5 to 16 kms, implying cost for transport ranging from 2000 to 5000 TZS (0,87 US$ to 2.2 US$) for the patient. None of the patient pay any cost for screening or MDT. One of the patients had a type 1 reaction, well managed in the center. Non allergy had been reported by the patients.

9.1.2.2 Muheza DC (Muheza DDH)

The number of patients under treatment at the date of the visit was 11, including 3 PBA and 8 MBA. In 2019, 27 MB patients were put under treatment. All of them cured.
During the visit, four patients were interviewed and reexamined, including 2 female and 2 Male, all adults, and all new cases.

Leprosy diagnosis is confirmed for all and all were MB cases. One of them had grade 1 disability and the second had grade 2 disability by the time of the diagnosis. The disability had resolved for the patient with G1D at the moment of the visit. The diagnosis delay varied from 2 to 12 months, as declared by patients. They all get regular MDT, and 1/4 was already declared cured (treatment completed). They all followed a flexible mode of treatment follow up, and comes monthly to take their drugs. The distance covered by the patient to take their treatment varies from 7 to 25 kms, implying cost for transport ranging from 2000 to 3000 TZS (0,87 US$ to 1.3 US$) for the patient. None of the patient pay any cost for screening or MDT. None of the patients faced reaction, nor allergy.

9.1.3 ***MDT Management***

In Ngamiana, only one pack of MBA blister was available during the visit.
In Mkinga, only two pack of MBA blister was available during the visit. However, there was 13 blister packs of MBC, despite the fact that no MBC patient was under treatment by the time of the visit.
In Muheza, there was 18 MBA blister packs and none PBA available during the visit.

9.1.4 ***Synthesis of the indicators in the two highly endemic disctricts of the project (Muheza and Mkinga versus Tanga)***

9.1.4.1 Evolution of main performance indicators

The summary of the main performance indicators is presented in tables I and II below, in which the periods before the implementation of the project is compared to the one during the project (Table I), and the baseline (in 2016) is compared to the indicator at the end of the project (in 2021) (Table II).

Table II : *summary of the evolution of the main performance indicators between the periods before and during the implementation of the project*

	Prevalence rate (per 10,000 inhabitants)		Detection rate (per 10,000 inhabitants)		G2D (%)		CHILD (%)	
	P1	**P2**	**P1**	**P2**	**P1**	**P2**	**P1**	**P2**
Tanga	0,15	0,26	0,34	0,33	0,00	2,67	2,67	0,00
Mkinga	3,36	1,60	3,68	1,45	2,67	0,00	0,00	0,00
Muheza	0,86	0,67	0,93	0,77	23,00	26,67	6,33	12,67
Mkinga and Muheza	1,72	0,99	1,91	1,01	9,33	12,33	2,67	5,67

P1 = 2016-2018
P2 = 2019-2021

Table III summary of the evolution of the main performance indicators between the baseline (in 2016) and the end of the project (2021)

	Prevalence rate (per 10,000 inhabitants)		Detection rate (per 10,000 inhabitants)		G2D (%)		CHILD (%)	
	B	**E**	**B**	**E**	**B**	**E**	**B**	**E**
Tanga	**0,16**	**0,34**	**0,25**	**0,34**	**0**	**8**	**0**	**0**
Mkinga	2,1	0,94	2,42	0,94	7	0	0	0
Muheza	0,83	0,42	0,83	0,42	21	45	5	0
Mkinga and Muheza	**1,27**	**0,6**	**1,39**	**0,6**	**12**	**21**	**2**	**0**

B = Baseline (2016)
E = End of the project (2021)

The **prevalence rate declined** between the two periods (before versus end of the the project). It was under **1/10,000** inhabitants in the period of the implementation of the project and remain at this level in 2021

There is a **high proportion of G2D (late detection) and child cases** in the two districts, mainly in **Muheza**, meaning of ***active transmission occuring in this district.***

9.1.4.2 Patients' management

The number of patients under treatment in the two districts covered by the project at the date of the visit was 43 (thus average of 21), including 32 MBA and 3 PBA, versus 12, all MBA in Tanga (Ngamiana). In 2019, 52 MB patients (average of 26) were put under treatment versus only 3 in Tanga (Ngaminana). All of them cured**.**

The number of new cases is higher in the districts covered by the project, compared to the one not covered. In addition, in the district covered by the project, PB cases had been detected. The detection rate is very high in the districts covered by the project.

There were incident cases in the three districts. The diagnosis is confirmed. They are all MB, and 3 out of 8 had G2D by the time of the diagnosis, meaning that the diagnosis still late in the two districts. In Tanga 2 out of 3 had G1D, which already resolved by the time of the visit. All patients get regular free treatment and are cured in timeline in the two districts covered by the project. The provision of MDT is provided on a flexible way for all patients. However, patients still face monthly transport costs, varying from 0.8 to 2.2 US$ in the three districts.

9.1.4.3 MDT Management

In the two districts covered by the project, MDT is available, with an inequal distribution. There were some blisters packs of MBC, where no MBC patient was under treatment and a lack of PBA where there was PBA patients under treatment. In Tanga, the number blister packs available is not in adequation to the number of patients that should be covered.
It should however be noticed that the MDT available in the three hospitals visited are related to the patients of this hospital only, and not of the district.

9.1.4.4 Health workers knowledge score

The Knowledge scores of health workers interviewed in the three centers are summarized in the figure below.

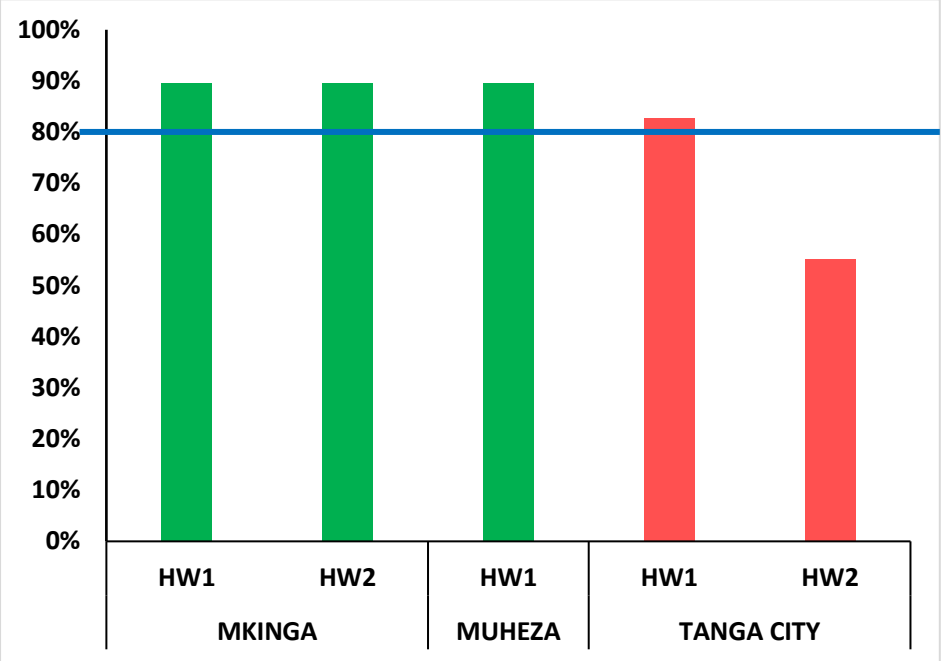


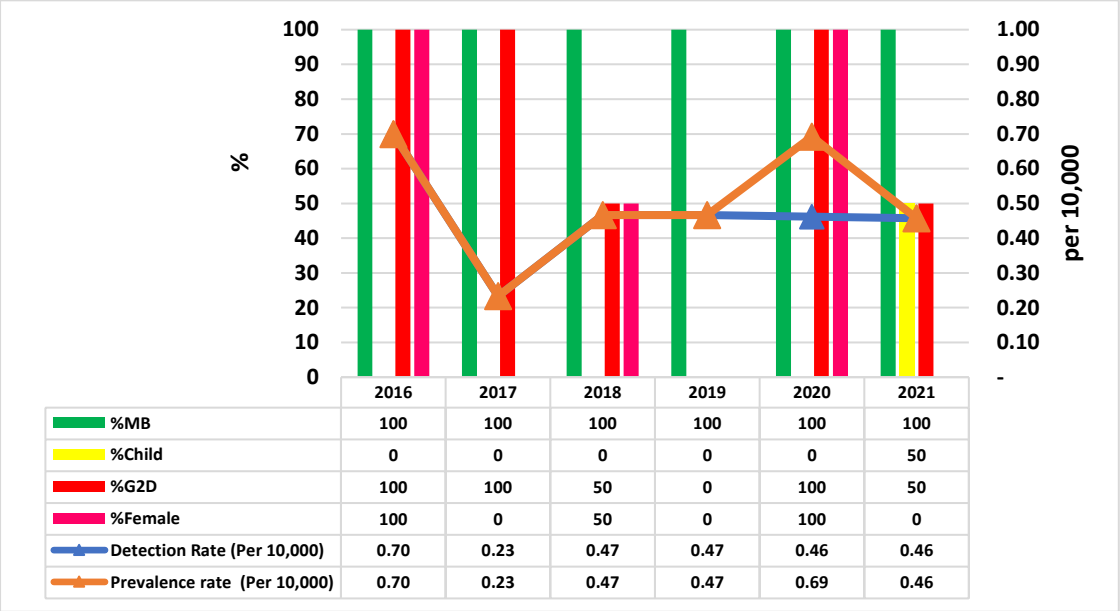
Figure 4 : *Knowledge scores of health workers interviewed in the three districts of the high endemicity region of Tanga*

The assessment of the knowledge of the health workers showed a higher score in the district of the project (90% at Mkinga and Muheza), compared to the district that had not benefit of the project (respectively 83% and 55% in Ngamania). The items of low knowledge are essentially related to the examination of the nerves, the advice for self-care as well as the different possible modalities of accompaniment of the MDT.

9.2 Low endemicity region (Singuida)

9.2.1 *Trends of main leprosy elimination indicators*

9.2.1.1 Singida Municipality (SRRH)

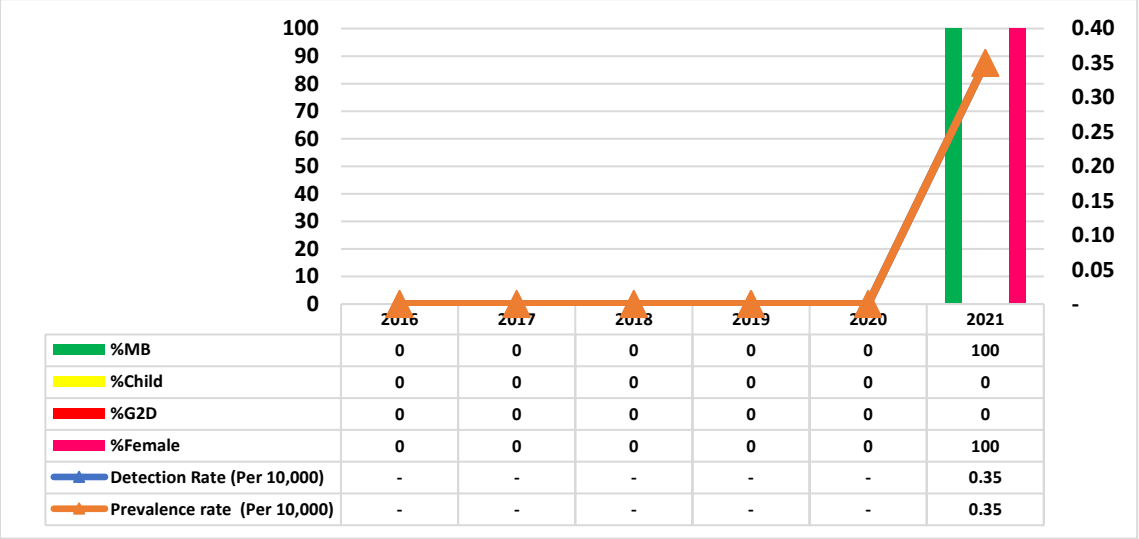


	2016	2017	2018	2019	2020	2021
%MB	100	100	100	100	100	100
%Child	0	0	0	0	0	50
%G2D	100	100	50	0	100	50
%Female	100	0	50	0	100	0
Detection Rate (Per 10,000)	0.70	0.23	0.47	0.47	0.46	0.46
Prevalence rate (Per 10,000)	0.70	0.23	0.47	0.47	0.69	0.46

Figure 5 trend of the main leprosy elimination indicators for the Singuida municipality

The detection and prevalence rates remained under 1 per 10,000 inhabitants in the district during all the period. However, the detection is late, with 100% of MB and proportion of G2D varied from 50% to 100% accepted in 2019 This late detection could be linked to the reducing of the skills and capacity for leprosis diagnosis at peripheral level of the health system as well as the lack of active case-finding with contact-tracing of MB new cases of leprosy.
The trend of female cases is inconsistent (100% in 2016 and 2020, 50% in 2018, and 0 cases in 2017 and 2019). It should also be noticed that there was 50% of child detected in 2021. Note that since the numbers of annual new cases are small (ranging from 1 to 3) these percentages of MB, children and grade-2 disabilities among new cases need to be interpreted with caution.

9.2.1.2 Singida DC (Dispensary)



	2016	2017	2018	2019	2020	2021
%MB	0	0	0	0	0	100
%Child	0	0	0	0	0	0
%G2D	0	0	0	0	0	0
%Female	0	0	0	0	0	100
Detection Rate (Per 10,000)	-	-	-	-	-	0.35
Prevalence rate (Per 10,000)	-	-	-	-	-	0.35

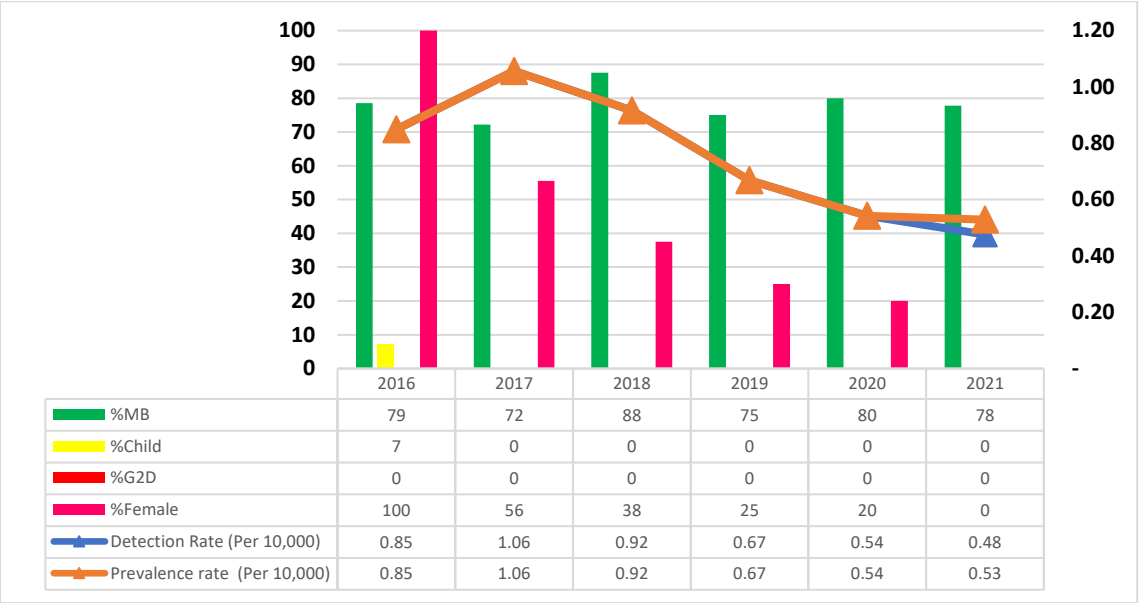
Figure 6 : *trend of the main leprosy elimination indicators in the Singuida DC Dispensary*

The detection ***and prevalence*** rate***s*** remained ***at 0 till 2021 where 1 case had been reported. It was a female MBA.***

9.2.1.3 Ikungi DC (HC)

There was only one MBA case recorded in 2018. No additional case was recorded since then.

9.2.1.4 Manyoni DC

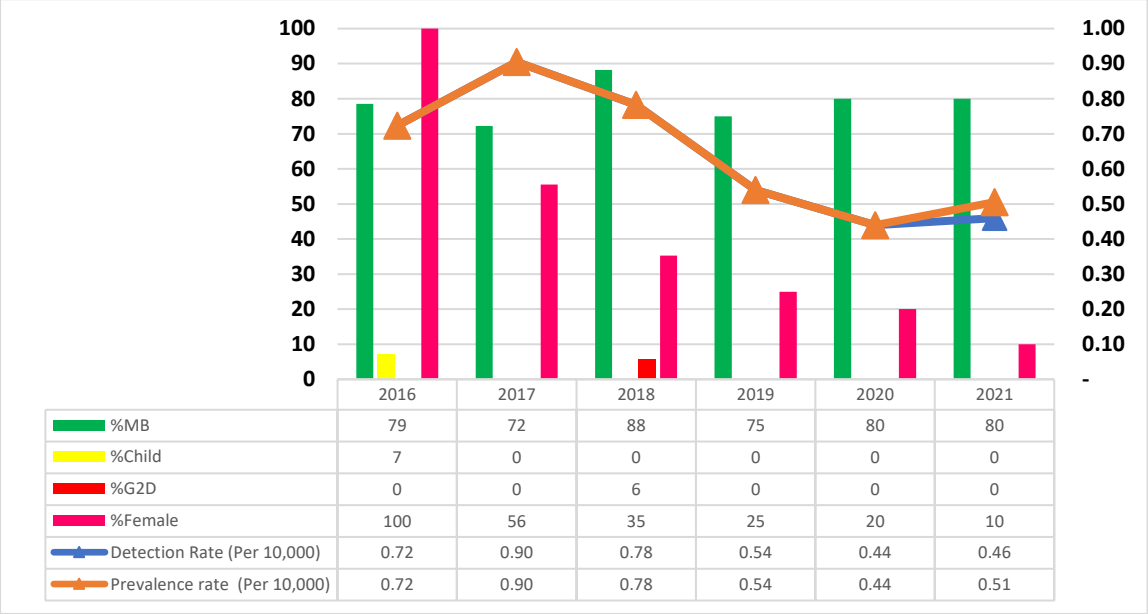


	2016	2017	2018	2019	2020	2021
%MB	79	72	88	75	80	78
%Child	7	0	0	0	0	0
%G2D	0	0	0	0	0	0
%Female	100	56	38	25	20	0
Detection Rate (Per 10,000)	0.85	1.06	0.92	0.67	0.54	0.48
Prevalence rate (Per 10,000)	0.85	1.06	0.92	0.67	0.54	0.53

Figure 7*: trend of the main leprosy elimination indicators in the Manyoni DC*

The detection ***and prevalence*** rate***s vary from 0,85 per 10,000 inhabitants in 2016, to 0,48 and 0,53 per 10,000 inhabitants respectively, in 2021. The detection is late, with a proportion of MB varying from 72% to 80%, but without G2D.***
The trend of female cases is declining (100% in 2016 to 20% in 2020 and 0%in 2021). Only One child was detected since 2016.

9.2.1.5 *Synthesis of the main leprosy elimination indicators in the three district centers visited in Singuida region*



	2016	2017	2018	2019	2020	2021
%MB	79	72	88	75	80	80
%Child	7	0	0	0	0	0
%G2D	0	0	6	0	0	0
%Female	100	56	35	25	20	10
Detection Rate (Per 10,000)	0.72	0.90	0.78	0.54	0.44	0.46
Prevalence rate (Per 10,000)	0.72	0.90	0.78	0.54	0.44	0.51

Figure 8 *trend of the main leprosy elimination indicators in the three districts centers visited in Singuida (except the municipal hospital)*

The detection ***and prevalence*** rate***s are generally declining from 2016 to 2021 (0,71 to 0,46 and 0,51) varied from 0,85 per 10,000 inhabitants in 2016, to 0,48 and 0,53 per 10,000 inhabitants respectively, in 2021. The detection is late, with a proportion of MB varying from 72% to 88%, with 6% of G2D in 2018.***
The trend of female cases is declining (100% in 2016 to 20% in 2020 and 10% in 2021). one child was detected since 2016.

9.2.2 ***MDT Management***

9.2.2.1 Singida Municipality (SRRH)

MBA and MBC blister packs are available (not quantify)

9.2.2.2 Singida DC (Dispensary)

The center has no stock of MDT

9.2.2.3 Ikungi DC (HC)

The center has no stock of MDT

9.2.2.4 Manyoni DC

MBA blister packs were available (30 packs), but there was no PB blister packs available (PB patients had already get their last treatments and were declared cured).

9.2.3 ***Patients' management***

9.2.3.1 Singida Municipality (SRRH)

The number of patients under treatment at the date of the visit was two. In 2019, two MB patients were put under treatment. All of them cured.

During the visit, two male patients were interviewed and reexamined, including one adult, and one child, all new cases.

Leprosy diagnosis is confirmed for both and they all are MB. One (the adult had G1D at diagnosis, and the 2nd case (the child) had G2D at diagnosis. The disabilities persisted for both at the time of the visit. The diagnosis delay was estimated respectively 1 and 3 months by the patients. All get regular MDT, and had not yet finished their treatments. They all followed a flexible mode of treatment follow up, and comes monthly to take their drugs. However, the distance covered by the patient to take their MDT was respectively 2 and 25 kms, implying cost for transport ranging from 2000 to 16000 TZS (0,83 US$ to 6,96 US$) for the patient. None of the patient pay any cost for screening or MDT. There is no history of Leprosy reaction or allergy reported.

9.2.3.2 Singida DC (Dispensary)

Only one patient, female MBA, was under treatment during the visit. She is under treatment, get regular MDT and not yet cured. She had been reexamined during the visit. MB leprosy was confirmed. She had G1D at the time of the diagnosis. This is persisting. The diagnosis delay was estimate to 3 months. They all followed a flexible mode of treatment. She lives near the center (0,5 km), and face no cost for her treatment, including travel cost. There is no history of leprosy reaction or allergy reported.

No patient was recorded in this center since 2016.

9.2.3.3 Ikungi DC (HC)

The patient recorded and treated in 2018 had been reexamined by the evaluation team.

He is an MBA patient. Leprosy is confirmed. He was already at the stage of G2D at the time of the diagnosis. The disabilities persist at the time of the visit. He got regular free treatment and is cured. He followed a flexible treatment mode, and spent 10 km for monthly provision of drugs, with estimated cost of 2000 TZS (0,87 US$) per month. There is no history of Leprosy reaction or allergy reported.

9.2.3.4 Manyoni DC

Nine MBA patients were put on treatment in 2019 and were all cured.
Two PBA patients were treated in 2020 and are already cured.
Eight MBA patients were under treatment during the visit.
Two patients were interviewed and reexamined during the visit. They were two males, MBA. The diagnosis of leprosy is confirmed for both. At the time of the diagnosis, one had a G2D and the 2nd had a G1D. The disabilities persist for both at the time of the visit. The diagnosis delay was estimate at 12 and 72 months respectively by the patients. They all get regular treatment, and one is already cured. The distance covered to get treatment is estimated at 3 and 30 km respectively, but with no transport cost, because the patient comes with his bicycle. The two patients faced Type 1 reaction. There is no history of allergy.

9.3 Summary of the indicators in the low endemic Region (Singuida)

9.3.1 ***Evolution of main performance indicators***

The summary of the main performance indicators is presented in tables IV and V below, in which the periods before the implementation of the project is compared to the one during

the project (Table IV), and the baseline (in 2016) is compared to the indicators at the end of the project (in 2021) (Table V).

Table IV : summary of the evolution of the main performance indicators between the periods before and during the implementation of the project in the low endemicity region

	Prevalence rate (per 10,000 inhabitants)		Detection rate (per 10,000 inhabitants)		G2D (%)		CHILD (%)	
	P1	P2	P1	P2	P1	P2	P1	P2
Singida Municipal	**0,47**	**0,54**	**0,47**	**0,46**	**83,33**	**50,00**	**0,00**	**16,67**
Singida DC	0,00	0,12	0,00	0,12	0,00	0,00	0,00	0,00
Ikungi DC	0,24	0,00	0,24	0,00	0,00	0,00	0,00	0,00
Manyoni DC	0,94	0,58	0,94	0,56	0,00	0,00	2,33	0,00
Synthesis of Districts visited in Singuida	**0,80**	**0,48**	**0,80**	**0,48**	**2,00**	**0,00**	**2,33**	**0,00**

P1 = 2016-2018
P2 = 2019-2021

Table V : summary of the evolution of the main performance indicators between the baseline (in 2016) and the end of the *project (2021) in the low endemicity region*

	Prevalence rate (per 10,000 inhabitants)		Detection rate (per 10,000 inhabitants)		G2D (%)		CHILD (%)	
	B	**E**	**B**	**E**	**B**	**E**	**B**	**E**
Singida Municipal	**0,7**	**0,46**	**0,7**	**0,46**	**100**	**50**	**0**	**50**
Singida DC	0	0	0	0,35	0	0	0	0
Ikungi DC	0	0	0	0	0	0	0	0
Manyoni DC	0,85	0,53	0,85	0,48	0	0	7	0
Synthesis of Districts visited in Singuida	**0,72**	**0,46**	**0,72**	**0,46**	**0**	**0**	**7**	**0**

B = Baseline (2016)
E = End of the project (2021)

The prevalence rate declined from 2016 to 2021 and remain under 1 per 10,000 inhabitants, confirming the low endemicity of the region. However, more cases are detected in Mayoni. In 2021, there is no G2D, *but 1 Child case*.

9.3.2 *MDT Management*

Two of the four centers visited did not have a stock of MDT.

9.3.3 *Health workers knowledge score*

The Knowledge scores of health workers interviewed in the four centers visited in Singuida are summarized in the figure below.

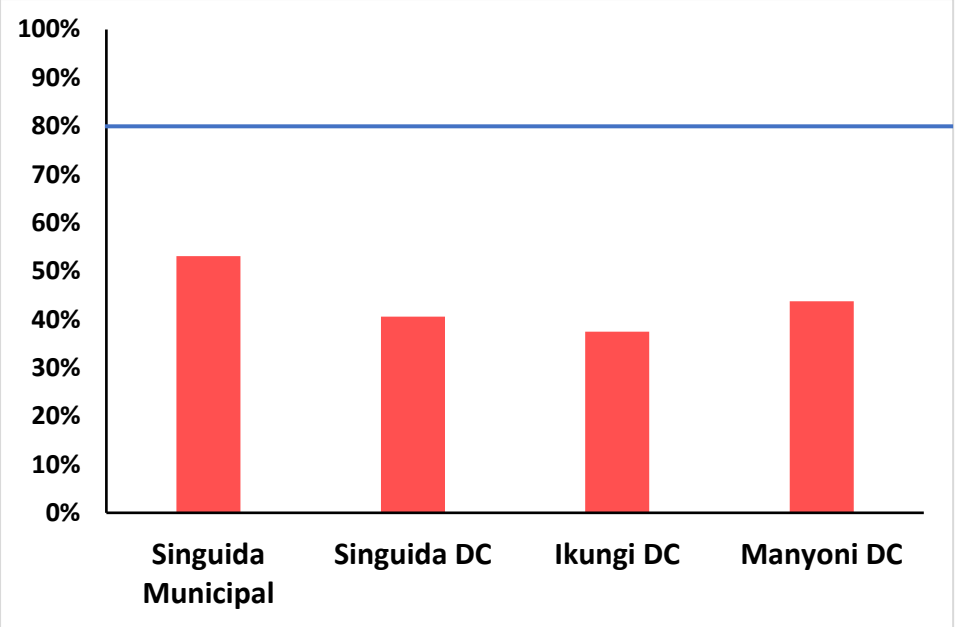


Figure 9 *Knowledge scores of health workers interviewed in the three districts of the low endemicity region of Singuida*

The assessment of the knowledge of the health workers showed a low score in the low endemic districts, varying from 38% to 53%. The items of low knowledge are essentially related to the sensitivity testing, examination of the nerves, the advice for self-care as well as the different possible modalities of accompaniment of the MDT and sometimes duration of the treatment for MBC patient.

9.3.4 *Patients' management*

All centers had at least one case managed in the three previous years. The diagnosis is correct and patients get free treatment. The G2D is low. But one child case detected in the municipal in 2021 implies that more attention should be paid on this region.
Moreover, the distance covered by some patient to take their MDT is long with consequently high transport cost for them.

9.4 Synthesis of the evaluation of the country's leprosy program

This evaluation was performed jointly with the BDFS project assessment. The main findings, according to the GLP pillars are summarized in the following, for the two regions

9.4.1 *High endemicity Tanga Region*

9.4.1.1 Pillar 1: Implement and integrated country own zero leprosy roadmap in all endemic countries

- The district takes advantage of the TB activities in the district to integrate the leprosy activities.
- There are no local resources to support leprosy.
- No partner directly involved in leprosy activities
- TB Leprosy coordinators don't have enough support to conduct mentorship and supportive supervision at the facility
- Capacity building: there is not enough capacity building activities for newly recruited and existing staffs

- There is a good recording system: availability of patient cards, PoD register, leprosy unit register, annual reports
- Data completeness: generally, its good but needs to be improved
- They are not used for mapping. But at Muheza DC they say they use for planning activities
- Monitoring of Antimicrobial Resistance (AMR) and Adverse Drug Reaction is not performed.

9.4.1.2 Pillar 2: Scale up Leprosy Prevention alongside integrated active case detection

Contact tracing is well performed and well documented. For each index case, 4-5 contacts were traced and investigated for Leprosy. Chemotherapy Postexposure Prevention is not performed, although staffs have knowledge about it.
Active case finding is performed by community volunteers in the community, but not documented at district and facility level.

9.4.1.3 Pillar 3: Management of Leprosy and its complications and prevent new disability

Detection is late in all facilities, with %MB cases between 90-100%. All patients have good and regular access to MDT. In case of complication patients are referred to Tanga RRH, although there is no documentation. Self-care generally needs to be reinforced.

9.4.1.4 Pillar 4: Combat stigma and ensure human rights are respected

There is no law for prevention of discrimination/stigma for person affected with leprosy

9.4.2 ***Low endemic Singida region***

9.4.2.1 Pillar 1: Implement integrated, zero leprosy road maps

There is a regional partnership for zero leprosy that includes the government, under the Ministry of Social Welfare in Prime Minister's Office, and faith-based partners, including the Catholic Church, who work in collaboration with the Ministry of Health, Community Development, Gender, Elders and Children, as well as the President's office, Regional Administration and Local Government to support leprosy interventions. Together the team helps the region implement national guidelines and standards for leprosy, by identifying, treating, and caring those with disabilities, mainly effective in in Manyoni district.

There are no groups involving persons affected by leprosy, neither NGOs or CSOs and ILEP members supporting leprosy activities in Singida.

The region has inadequate funds from domestic sources that could be used to support leprosy activities and most of leprosy interventions are combined with TB activities.

The region minimally combines zero leprosy roadmaps into the overall planning and multi-stakeholder engagement. There is little or no integration with skin-NTDs activities.

Less than 10% of employees in all visited areas and regions reported being involved in ongoing/active leprosy trainings. There are currently no continuous policies in place to build and sustain leprosy capacity among health personnel, with little or no emphasis placed on providing capacity building sessions to health personnel or health training institutions. This comprises both formal and informal/on-the-job training.

All districts visited had unit register and POD register to report on disabilities. Patients also had treatment cards for all patients, however with some items not well documented, with exception of Manyoni DH.

Leprosy is included in DHIS2 since 2014, and in 2016, the region adopted and began implementing this digitized case-based data reporting system for leprosy. Currently, all districts in Singida region use the electronic TB leprosy registry (ETL), and data on leprosy was available and up to date. There is data on patients with disabilities, but none on those who are at risk after the completion of treatment.

With regards to surveillance, the country has an integrated national disease surveillance and reporting system, with at least ten diseases on the list of notifiable diseases. This system is used by Singida region, as well as in other regions and districts, to report and conduct surveillance for specific conditions. Leprosy is not in the list of notifiable conditions. There are also no mechanisms in place for real-time data and decision making for leprosy epidemiology and post-treatment surveillance. None of the districts/municipalities use digital mapping. Annual reports are currently used to determine leprosy hotspots in the country.

There are no research activities on leprosy, an area that could guide disease epidemiological changes and interventions to be undertaken in a timely manner.

There is an integrated pharmacovigilance system nationally that reports on all drug adverse reactions including for MDT, steroid therapy, and SDR-PEP. However, there is no independent or stand-alone pharmacovigilance system for leprosy. All districts visited had no reports on leprosy AMR.

9.4.2.2 Pillar 2: Scale up leprosy prevention & active case detection

In all patients' files names of contacts who live with the index case are recorded, but none of the districts reported doing contact tracing. The region does not have a system in place for contact tracing.

The region doesn't implement preventive chemotherapy.
Leprosy case finding is rarely or scarcely conducted. Skin screening clinic camps are also not taking place.

9.4.2.3 Pillar 3: Manage leprosy and its complications and prevent new disability

Manyoni has a leprosy centre, which is overseen by the social welfare office. The centre provides food, shelter and offer wound care for those affected by leprosy. Previously, the centre used to provide rehabilitation services and operated on cases in need of amputation or other form of surgery. This is not happening now.
Except for leprous shoes, there is currently little information available for people who require assistive technology. Though the assistance is provided through government institutions, at most times these individuals are forgotten. There is no data on referral cases for assistive products.
In all three districts visited; it was indicated that they use Prednisolone in the event of leprosy reactions. There was no information, however, on assessing patients with leprosy reactions. Additionally, the team was informed of Prednisolone scarcity, caused by repeated stock outs or inadequacies.
Currently, Singida region lacks self-care organizations. The existing centre in Manyoni provides only little self-care assistance. Additionally, we noted that instruction on leprosy medication and self-care was provided in varied degrees between districts. Several patients, however, were not told about mild pharmacological adverse effects following treatment, which would have helped them adhere to therapy, and avoid the possibility of greater disability.

Psychological support is provided and there is a linkage in referral mechanism to social welfare officials. According to RMO, rarely, psychological support is available at point of care. Most of healthcare staff lack adequate knowledge on leprosy. There is very little therapeutic counselling accessible, particularly at the hospital level, but not at health clinics and dispensaries, where most patients attend. Occasionally, normal referrals are done just like other diseases, but not specific for Leprosy.

9.4.2.4 Pillar 4: Combat stigma and ensure human rights are respected

There is no legislation or rule in Singida, neither the whole of Tanzania, that allows discrimination based on leprosy. Every individual patient has the freedom to choose where he or she can get services, regardless of social, economic, racial, or political status. The services are provided at no cost. There is also no gender discrimination in the provision of leprosy services at the national, regional, district, and community levels.
Singida does not have a formal association of leprosy patients for self-help and advocacy; nonetheless, there is a centre for leprosy patients where they can get food, housing, and wound treatment. They are also urged to take care of themselves. The centre is located in the Manyoni District Council and is supported by the Prime Minister's Office - Social Welfare department as well as the Catholic Church.
Singida still has a significant level of stigma associated with leprosy. Over 60% of those interviewed still believed that leprosy was associated with a significant level of stigma. There has been no report of exclusion of leprosy patients or their family members from health facilities, schools, or other public services owing to leprosy, though we received information of one patient who was divorced and was also rejected by her family due to leprosy.
Persons with leprosy, like other disabled people, have access to social benefits and community-based rehabilitative treatments. They can be involved in social activities or social entitlements, as well as other community-based initiatives. However, due to limited support structures, funds, and referral processes, the majority of patients interviewed expressed frustration with their inability to gain seamless access. There are no apparent particular referral procedures or assistance in place to allow for smooth access of such services.

10. Analysis of the strengths, weaknesses and challenges

10.1 Strengths

Specifics strengths related to the implementation of the BDSF project are as followed:
In the districts of the BDSF project, compared to other,

- There is minimum will among administrators to integrate leprosy with other programs, especially by combining TB activities with leprosy ones.
- HW had sufficient knowledge
- Contact tracing is performed and well documented by the community health workers and in health centers
- CHW have recently increased case notifications
- The diagnosis is well performed
- All patients get free and regular treatments and are cured in timeline
- In all centers, the DHIS 2/ETL system is well organized, filling patient-based data which are mostly up to date.

10.2 Weaknesses

Some weaknesses of the overall system have been highlighted from the combination of the BDSF project evaluation with the country's leprosy situation assessment. We summarized here the most important:

- There are no specific or inadequate funds allocated for leprosy activities in all districts and no NGOs supporting leprosy activities.
- None of the districts or the region indicated active participation of people affected by leprosy in the planning and implementation of leprosy programmes
- There is at operational level, no, or limit mechanism in place for real-time data use for decision making for leprosy epidemiology and post-treatment surveillance.
- None of the districts/municipalities use digital mapping
- There is no data on referral cases for assistive products
- There is an inadequate prevention of disability services, especially in the selfcare implementation
- Despite the fact that there is a national PAL organization for self-help and advocacy, this organization is not well established at regional or council or district levels.
- In the low endemicity region
    - There is an inadequate knowledge on leprosy in health care providers, due to insufficient trainings to capacitate health staff with knowledge on quick diagnosis of leprosy, absence of job aids on leprosy apart from NTLP guidelines of 2013
    - There is a lack of training of CHWs on leprosy that could have led to less suspicious for leprosy cases in communities to facility level
    - Contact tracing is not implemented fully
    - There is no active leprosy case finding in councils
    - Stigma index is still high (especially at community level).
    - There is a little community involvement, effort, and participation in leprosy programs.

10.3 Challenges

From the above, many challenges must be addressed in order to improve the way toward leprosy elimination.

There is a need to

- establish a mechanism to get specific funds (local or through partnership) addressed for leprosy activities
- increase knowledge on leprosy in health care providers, especially on early signs, diagnosis, treatment, management of reactions, allergy and complications, self-care
- reduce the proportion of MB and G2D
- improve the capacity of CHW in providing awareness of leprosy to the community
- increase awareness of the community on leprosy disease.
- further reorganized the prevention of disability services, including reinforcement of selfcare
- address stigmatization issues

11. Recommendations/Way forward (suggestions for accelerating the programme to achieve target)

Addressed to the Ministry of Health

- To develop an NTDs master plan, integrating leprosy as a component of NTDs. The presence of a strategic plan will direct the mobilization of leprosy local resources

- To enhance the country commitment on leprosy funding to support leprosy elimination interventions
- To Include leprosy interventions in Council City Health Plan and Council Health Operational Plans

Addressed to the TB and Leprosy Program

- To attract NGOs to support leprosy activities and complement government efforts.
- To integrate leprosy in other programs and interventions to support implementation of activities.
- To improve Health Care Workers and Community Health Workers in the general system knowledge on Leprosy using various strategies, including on job training and General basic training of health workers
- Establish care screening services at OPD in high volume health facilities
- To increase awareness on leprosy and others NTDs especially in communities and general health systems
- To include leprosy in school health programs
- To include leprosy in CHWs training and implementation packages
- To integrate leprosy services with NTD and other community groups
- To extend and generalize early detection activities (active case search, contact tracing, training of HW and community members in all high endemic districts (Special focus should be made on Muheza (where ongoing active transmission proven), and Manyoni, which seems to be more endemic than it seems
- To design and implement active (house to house) case finding activities in classified "low endemic districts", in order to confirm low endemicity
- Strengthen outreach services to the hard-to-reach areas.
- To implement advanced strategy for MDT delivery to patients, in order to reduce for them transport costs
- To organize and implement selfcare strategy at country level. That could include establishment of selfcare groups where it doesn't exist and support the existing one.
- To strengthening referral services for leprosy complications
- To develop an advocacy, communication and Social Mobilization strategy, to raise awareness of the disease in the community, and address stigma among other needs.
- To involve political, influential and traditional healers to understand and sensitize communities on the need to prevent and control leprosy in communities.
- To develop an Action Plan and forum to guide research on leprosy
- To improve medicine supply chain in low endemicity regions
- To capacitate HCWs on Leprosy and mental health.
- To educate PAL on their rights.
- To create awareness for positive discrimination.
- To establish mandatory surveillance and case detection at Community level
- Association for PAL are a good source of advocacy and support to those affected if they are live and effectively utilized at region and district levels.

Actions to be taken by WHO

- Advocate at the level of the Sasakawa Health Foundation for the continuation of the project and the extension to other districts

- To support the country in the development of an NTDs master plan, integrating leprosy as a component of NTDs
- To advocate with the government for an increase in local funding for the fight against leprosy
- To advocate with other NGOs to support leprosy control activities in Tanzania and complement government efforts

12. Conclusion

The BDSF has contributed to achieve the elimination of leprosy as public health problem in the targeted districts. It is important to maintain / implement and enhance integrated community-based activities in high endemic districts as well as in low endemic districts to sustain this achievement.

Leprosy is still a disease of concern in the Community. Community is ready to learn about leprosy. If left neglected or unattended, there's possibility of surge of patients and become a big public health problem.

13. Annex

13.1 Programme management indicators (Indicators to be collected at National level)

	2020	2019	2018	2017	2016
Total Human resources involved in leprosy activities	23	16	16	15	15
Financial resources allocated for leprosy activities US$	2,950,000	1,450,000	2,750,000	1,450,000	2,450,000
including from the government					
including from non-governmental organization	2,950,000	1,450,000	2,750,000	1,450,000	2,450,000
Number of Supervision planned	33	33	33	33	33
Number of Supervision completed	18	26	30	27	29
Number of Monitoring planned BDSF	2	2	2	2	2
Number of Monitoring completed BDSF	2	2	2	2	2
Number of Active finding activities planned	10 districts	10 districts	6 districts	6 districts	3 districts
Number of Active finding activities completed	10 districts	8 districts	6 districts	3 districts	3 districts
Number of contact tracing activities completed	10 districts	10 districts	6 districts	6 districts	3 districts
Number of contact tracing activities completed	10 districts	8 districts	6 districts	3 districts	3 districts

13.2 Agenda

	Dates	ACTIVITY
A.	Saturday, 20/11/2021	The arrival of WHO Experts in DAR-es-salaam
B.	Sunday, 21/11/2021	Travel to Dodoma by air
C.	Monday, 22/11/2021	Attend Preparatory Meeting in Dodoma Nashera Hall
D (a)	Tuesday, 23/11/2021	Travel Dodoma - Dar by Air
	Tuesday, 23/11/2021	Leave for Tanga by WHO vehicle (same day)
	24-27/11/2021	• Visits in Tanga: Tanga City (Ngamiani HC); Mkinga DC (Maramba HC); Muheza DC (Muheza DDH)
	Saturday, 27/11/2021	Travel from Tanga to Dar-es-salaam
	Sunday, 28/11/2021	Travel to Dodoma by Air
D (b)	23/11/2021	Travel to Singida from Dodoma by WHO vehicle
	24-27/11/2021	• Visits in Singida: Singida Municipality (SRRH); Singida DC (Dispensary); Ikungi DC (HC)
	27-28/11/2021	Travel back to Dodoma by WHO Vehicle
E.	Monday, 29/11/2021	Debriefing And Stakeholders' Meeting Preparations in Dodoma
F.	30/11 -2/12	Stakeholders Meeting and Planning for Zero Leprosy in Dodoma
G.	Friday, 3/12/2021	Return to Dar-es-salaam by Air
H.	4&5/12/2021	Departure from Dar-es-salaam (WHO International Team)

13.3 Evaluation teams

13.3.1 *Team A*

WHO/AFRO

	Names	Position	Organisation
1	Sopoh Ghislain	Consultant	WHO/AFRO
2	Yves Barogui	Focal Point for Leprosy Buruli ulcer and Yaws	WHO/AFRO

National

	Names	Position	Organisation
1	Paul Shunda	Prevention of Disability Coordinator	National Tuberculosis and Leprosy Program (NTLP)
2	Peter Neema	TB/HIV Coordinator	NTLP
3	Hamim Kigumi	Research Coordinator	NTLP

13.3.2 *Team B*

WCO

	Names	Position	Organisation
1	Dr. Alphoncina Nanai	National Professional Officer for Neglected Tropical Diseases, WHO	WHO-CO

National

	Names	Position	Organisation
1	Dr. Liberate Mleoh	Deputy Manager	NTLP MOHCDGEC
2	Ms. Tausi Mponzi	Health Systems Administrator	PORALG
3	Mr. Julius Mtemahanji	Advocacy and Communications Officer	NTLP, MOHCDGEC
4	Dr. Sakeo Kiluwa	Expert	NTLP

13.4 List of persons met

Team A

Tanga Regional Team

	Names	Position	Organisation
1	Rehema Maggid	Acting Regional Medical Officer (RMO)	Tanga Regional Health Management Team (RHMT)
2	Raphael Mumba	Regional TB & Leprosy Coordinator (RTLC)	Tanga Regional Health Management Team (RHMT)

Tanga City Council

	Names	Position	Organisation
1	Agnes Mchomi	Acting City Medical Officer of Health (Ag CMOH)	Tanga City Council (TCC)
2	Sufiani Mbelwa	District Tuberculosis and Leprosy Coordinator (DTLC)	Tanga City Council (TCC)-Tanga Urban

Ngamiani Health Centre

	Names	Position	Organisation
1	Eveta Ngowi	DOT Nurse	Ngamiani HC

Mkinga CHMT

	Names	Position	Organisation
1	Joseph Ligoha	District Medical Officer (DMO)	Mkinga District Council
2	Martin Daffa	District TB & Leprosy Coordinator (RTLC)	

Maramba HC

	Names	Position	Organisation
1	Josephat Mapunda	Medical Officer Incharge	Maramba Health Centre (HC)
2	Prisca John	DOT Provider	Maramba Health Centre (HC)

Muheza CHMT

	Names	Position	
1	Godfrey Mongi	Acting DMO	Muheza District Council
2	Jessie Ewald	DTLC	Muheza District Council

Muheza District Designated Hospital (DDH)

	Names	Position	
1	Mariam Sebarua	DOT	
2	Andrew Kalimbe	DOT Nurse	

Team B

Not Available

13.5 Places Visited

13.5.1 *Team A*

SN	Name of place	Date
1	Tanga Regional Health Management Team (RHMT)	24th November, 2021
2	Tanga CC CHMT	24th November, 2021
3	Ngamiani HC	24th November, 2021
4	Mkinga DC CHMT	25th November, 2021
5	Maramba	25th November, 2021
6	Muheza DC CHMT	26th November, 2021
7	Muheza DDH	26th November, 2021

13.5.2 *Team B*

1. Singida Region (RHMT)
2. Ikungi DC – Ikungi Health Centre
3. Singida DC – Ilongelo Health Centre
4. Singida MC – Sokoine Health Centre
5. Manyoni DC – Manyoni District Hospital

13.6 Some photographs

Overview of participants at the Preparatory meeting

Team A planning meeting

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Group picture of participants at the preparatory meeting
(face mask were removed just for the Photo)

Team A in Tanga with Mkinga DC team

Team B in Singida with Manyoni Leprosy team

Singida team discussing Leprosy issues with RMO of Singida

The review team members discussing about contact tracing with HCWs

DTLC demonstrating sensitivity test to a Leprosy patient during visit by the review team

Closing ceremony of the stakeholder meeting