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# NATIONAL LEPROSY & TUBERCULOSIS CONTROL PROGRAM

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## 2023 ANNUAL LEPROSY & TUBERCULOSIS REPORT



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## **Executive Summary**

The fight against infectious diseases remains a critical global health priority, with tuberculosis (TB) and leprosy continuing to pose significant challenges, particularly in low- and middle-income countries like The Gambia. As such, the National Leprosy and Tuberculosis Control Programme (NLTP) plays a central role in coordinating efforts to prevent, diagnose, and treat these diseases within the country.

The declining trend in TB incidence in The Gambia over the past five years is promising, indicating effective prevention and control measures. However, the increase in TB mortality rate is concerning, especially with HIV being identified as a key driver. This highlights the importance of integrated TB/HIV services and targeted interventions to address co-infections. The NLTP's notification of TB cases and high treatment success rate for the 2022 cohort demonstrate effective case management and patient care. However, challenges persist in detecting and managing drug-resistant TB cases, as well as childhood TB cases, due to resource constraints and capacity limitations. Reliance on the Global Fund as the main funding source underscores the importance of sustainable financing mechanisms for TB control activities. Adequate resources are essential for scaling up interventions, improving diagnostic capabilities, and strengthening health systems to achieve TB elimination goals.

Despite achieving elimination targets for Leprosy, the disease remains a priority due to its classification as a neglected tropical disease (NTD) by the World Health

Organization. Continued surveillance and treatment efforts are necessary to prevent resurgence and ensure sustained elimination. The NLTP's vision for a TB-free Gambia by 2030 aligns with global targets outlined in the Global End TB Strategy. Achieving these ambitious goals will require sustained political commitment, collaboration among stakeholders, increased investment in research and innovation, and strengthening of health systems.

This report serves as an overview of the current status of Leprosy and Tuberculosis in The Gambia, highlighting key trends, achievements, and challenges faced by the NLTP. By examining TB and Leprosy programme performance, resource availability, challenges and future goals, this report aims to provide a comprehensive understanding of the efforts undertaken to combat these diseases and the path forward towards elimination.

## **Acknowledgement**

On behalf of the Programme staff at the National Leprosy and Tuberculosis Control Program, Ministry of Health, I would like to express our sincere gratitude for your unwavering support and collaboration over the years. Your contributions, both financial and technical, have played a pivotal role in the success of our efforts to combat Leprosy and Tuberculosis in The Gambia.

To our esteemed donors and partners, including the Global Fund, World Health Organization, Medical Research Council, and West & Central Africa Network of TB Programmes, we extend our heartfelt appreciation for your commitment to our cause. Your support has enabled us to implement essential interventions, strengthen healthcare systems, and improve the quality of care for those affected by these diseases.

We would also like to acknowledge the National HIV/AIDS Secretariat as the Principal Recipient (PR) and the Country Coordinating Mechanism (CCM) for their invaluable guidance and oversight in implementing the Global Fund grant. Your guidance has been instrumental in ensuring effective program delivery and accountability.

A word of thanks goes out to the entire workforce of the Ministry of Health, including directorates, programmes, hospitals, regional directorates, and their facilities. Your dedication, hard work, and resilience have been exemplary, and it is through your collective efforts that we have achieved the remarkable gains highlighted in our latest report.

We recognize the importance of data-driven decision-making in improving the provision of quality care to our population. The semester data review exercises and periodic reporting facilitated by Programme and facility staff involved in Leprosy and TB services have been invaluable in guiding our interventions and shaping our strategies.

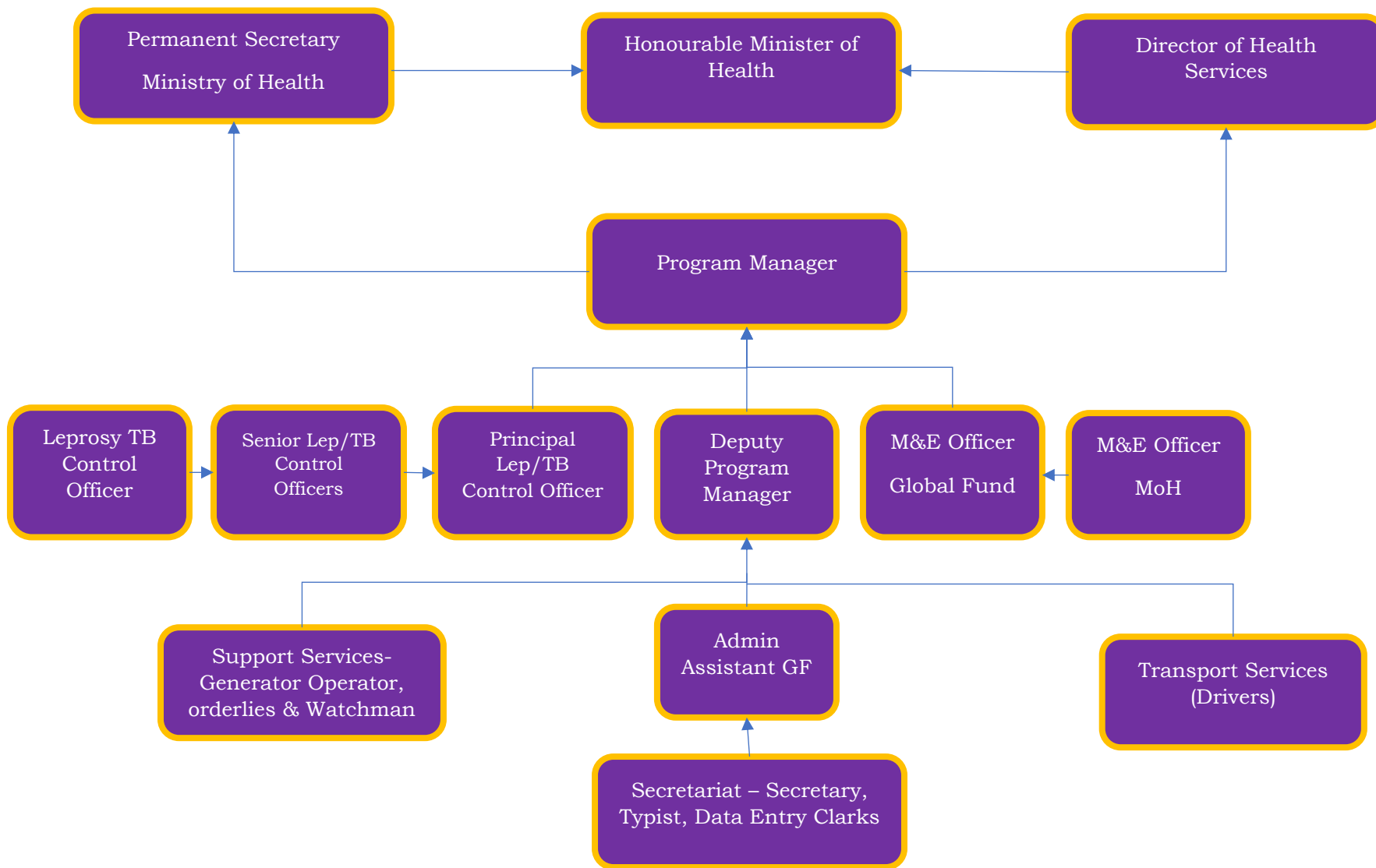
Lastly, we extend our appreciation to the leadership of the Ministry of Health, particularly the Directorate of Health Services, for providing the right policy directives, monitoring, and facilitation of access to government resources. Your support has been instrumental in the successful implementation of Leprosy and Tuberculosis activities in The Gambia.

Once again, thank you all for your unwavering support, dedication, and commitment to our shared goal of ending Leprosy and Tuberculosis in The Gambia. We look forward to continuing our collaboration and making further progress together.

**Mr. Wandifa Samateh**

**PROGRAMME MANAGER**

### Organogram of the NLTP





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## List of Acronyms

ACF	Active case finding
CCM	Country Coordinating Mechanism
DR-TB	Drug-resistant TB
DST	Drug susceptibility testing
EQA	External Quality Assurance
ICAM	International Course on Applied Mycobacteriology
LPA	Line Probe Assay
MDR-TB	Multidrug-resistant tuberculosis
MRC	Medical Research Council
NACP	National AIDS Control Program
NAS	National HIV/AIDS Secretariat
NLTP	National Leprosy and Tuberculosis Control Programme
NPHL	National Public Health Lab
NSP	National Strategic Plan
NTD	Neglected Tropical Disease
NTRL	National Tuberculosis Reference Lab
PCR	Polymerase Chain Reaction
PR	Principal Recipient
RHMTs	Regional Health Management Teams
RR	Rifampicin Resistance

SNRL	Supra National Reference Lab
TPT	Tuberculosis Preventive Treatment
WHO	World Health Organisation
XDR	Extensive Drug-Resistance

## **1. Introduction**

### **1.1 Background**

Tuberculosis (TB) remains one of the most pressing global health challenges of our time, exerting a significant toll on individuals, communities, and healthcare systems worldwide and the Gambia is not an exception. In settings with low resources, like The Gambia, TB remains a major cause of illness and mortality despite decades of efforts to control the disease.

With guidance, using the WHO Global Leprosy strategy, Leprosy control remains an integral part of the program mandates, and between January & December 2023, the program notified seven (7) cases of Leprosy. In total, Nineteen (19) cases are currently on treatment at various facilities<sup>1</sup>.

In low-income countries, TB ranks as the eighth leading cause of mortality and stands as the second most deadly infectious disease after COVID-19, surpassing even HIV/AIDS. Annually, an estimated 10 million individuals are afflicted with TB, resulting in 1.3 million deaths in 2022 alone<sup>2</sup>.

While global TB incidence is declining by approximately 2% annually, the cumulative reduction between 2015 and 2022 amounted to 8.7%, falling short of the WHO's End TB Target of 50% by 2025. The Gambia, however, has made notable strides in reducing TB incidence, witnessing a decrease from 149 per 100,000 in 2021 to 145 per 100,000 population in 2022<sup>2</sup>.

Due to the high expense of diagnosis and treatment, as well as the loss of productivity from illness during treatment, TB in The Gambia has been noted to drive people and families into poverty. Furthermore, the stigma attached to TB can make matters worse for impacted people and communities.

Molecular diagnostic tests such as Xpert MTB/RIF remain the mainstay for TB diagnosis in The Gambia. This has been a proven valuable tool for the rapid detection of TB and rifampicin resistance, enabling more timely and targeted interventions<sup>3</sup>.

The emergence of drug-resistant TB (DR-TB) among New TB patients in The Gambia continues to pose a significant challenge to TB control efforts, requiring active surveillance.

Despite several significant milestone achievements, numerous challenges remain in achieving the NSP targets for Leprosy & TB control and prevention. These include limited domestic funding for NLTP, access and care-seeking behaviours of the populace to healthcare services and social determinants of health such as poverty and malnutrition<sup>2</sup>.

In conclusion, Leprosy & TB remain a formidable public health threat that requires sustained political commitment at national and community levels. By addressing the social, economic, and biological determinants of TB, and by strengthening health systems and promoting equitable access to quality healthcare, we can move closer towards the goal of ending the TB epidemic, as outlined in the National Strategic Plan for Tuberculosis Control (2023-2027)<sup>45</sup>.

## **1.2 Objectives of the National Strategic Plan for Leprosy & Tuberculosis**

- To increase the TB treatment coverage from 57% in 2021 to 90% by 2027
- To increase the treatment success rate of all forms of TB from 87% in 2020 to 92% by 2027
- To increase the proportion of childhood TB case detection and notification from the current 6% (2021) to 10% by 2027
- To scale up universal access to integrated services for all patients with TB, TB/HIV co-infection, TB/Diabetes, and other comorbidities
- To increase the treatment success rate of patients with RR/MDR TB from 70% (2021) to 85% by 2027
- To scale up access of eligible clients to TB preventive Treatment (TPT).
- To ensure access to diagnosis and care for Leprosy<sup>4</sup>.

## **2. Epidemiology of Leprosy & Tuberculosis in The Gambia<sup>6</sup>**

### **2.1 TB Case Notification**

The Gambia has registered marked improvements in the number of notified TB cases in 2023 compared to any single year in The Gambia. While the estimated incidence of TB is 3900, the total number of notified TB cases in 2023 was 2792. Of this, previously treated TB cases accounted for 55 (2%), while 2737 (98%) were incident cases (New & Relapse). This accounted for a 70% coverage in finding TB cases. Regional variations exist, with Western Health Region I accounting for more than 50% of all notified TB cases. The combined notification from the Western Health Regions I & II accounted for 75% of notified cases. Brikama District Hospital has notified more cases than any facility (431 cases), Sukuta follows with 294 TB cases notified to the NLTP.

Table 1: TB Case Notification per facility & Region

Region	Facility	Q1	Q2	Q3	Q4	Total
Central River Region	Bansang Hospital	10	16	10	14	50
	Chamen Minor Health Centre	0	2	4	3	9
	Dankunku Minor Health Centre	2	5	3	1	11
	Jahali NGO Min. Health Centre	9	9	7	5	30
	Janjanbureh Minor Health Centre	3	1	4	0	8
	Kaur Minor Health Centre	12	10	5	8	35
	Kudang Minor Health Centre	2	6	7	10	25
	Kuntaur Minor Health Centre	7	8	7	5	27
	Sami Karantab Minor Health Centre	2	1	9	3	15
Total	% of cases notified from the region = 7.5%					210
Lower River Region	Bureng Major Health Centre	4	2	5	1	12
	Jappineh Village OPD	3	1	1	5	10
	Kiang Karantaba Min Health Centre	1	0	2	0	3
	Jwinella Minor Health Centre	1	3	8	6	18
	MRC Keneba	2	2	3	5	12
	Soma District Hospital	13	8	13	11	45
Total	% of cases notified from the region = 3.6%					100
North Bank East	Farafenni General Hospital	16	23	19	27	85
	Kerewan Minor Health Centre	5	5	7	3	20
	Ngenyen Sanjal Minor Health Centre	4	1	4	6	15
	Njaba Kunda Minor Health Centre	0	0	3	2	5
Total	% of cases notified from the region = 4.5%					125



North Bank West	Albreda Minor Health Centre	2	4	1	0	7
	Essau District Hospital	23	16	11	6	56
	Kuntaya Minor Health Centre	1	2	2	6	11
<b>Total</b>	% of cases notified from the region = 2.7%					<b>74</b>
Upper River Region	Badja Kunda Major Health Centre	6	3	2	1	12
	Basse District Hospital	17	21	21	27	86
	Diabugu Minor Health Centre	2	4	5	4	15
	Fatoto Minor Health Centre	3	2	3	3	11
	Gambisara Minor Health Centre	5	4	4	3	16
	Garawol Minor Health Centre	4	2	1	2	9
	Koina Minor Health Centre	1	1	2	1	5
	Yorobawol Minor Health Centre	4	2	4	2	12
<b>Total</b>	% of cases notified from the region = 5.9%					<b>166</b>
Western I Health	Banjulinding Minor Health Centre	27	33	29	34	123
	Bundung Maternal & Child Hospital	58	44	38	44	184
	Edward Francis Small Teaching Hospital	13	5	11	5	34
	EFSTH Polyclinic	5	15	9	14	43
	Fajara Barrack	12	7	15	10	44
	Fajikunda Major Health Centre	68	59	62	69	258
	Kanifing General Hospital	26	25	24	43	118
	Mile (2) Prisons	4	2	3	3	12
	Serrekunda Minor Health Centre	81	68	84	59	292
	Sukuta Minor Health Centre	74	71	71	78	294
	Yundum Barracks Clinic	12	9	14	6	41
<b>Total</b>	% of cases notified from the region = 51.7%					<b>1443</b>

Western II Health Region	Brikama District Hospital	107	109	108	107	431
	Bwiam General Hospital	27	14	20	17	78
	Gunjur Minor Health Centre	15	8	6	11	40
	Kafuta Min Health Centre	5	6	4	7	22
	Sanyang Major Health Centre	8	10	11	7	36
	Sibanor ECG NGO Clinic	0	0	11	15	26
	Tujereng Community Clinic	11	9	13	8	41
Total	% of cases notified from the region = 24.1%					674
Total for all the regions						2792

Source: DHIS2

## 2.2 Categories of TB patients

Bacteriologically diagnosed pulmonary TB cases accounted for 80% of all notified TB cases while clinically diagnosed pulmonary cases represented 14% of notified cases. The country has notified 165 EP-TB cases, a coverage far less than the expected target of 20-30% for extra-pulmonary TB cases.

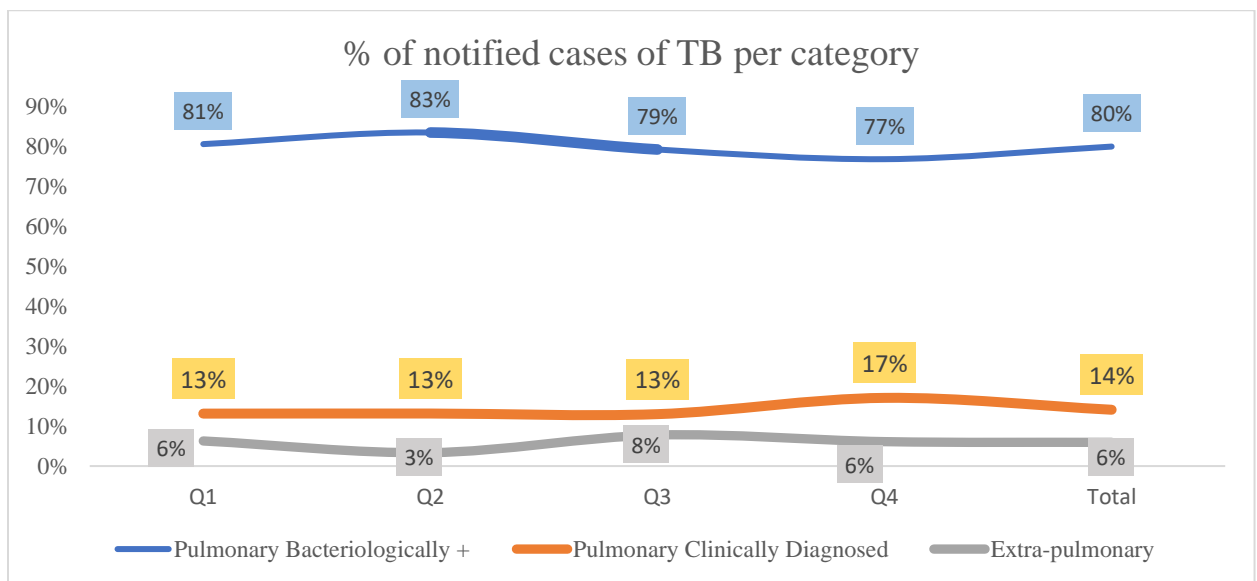


Figure 1 Category of TB patients

## 2.3 Childhood TB

The Gambia continues to be challenged with the notification of childhood TB cases. As per the national strategic plan for TB, the country is expected to have at least 10% of notified cases as childhood TB cases. However, only 6% is achieved. This is less than the 7% registered in 2022. The table shows the monthly TB case notifications for the year 2023 in a bar graph

with a line graph overlaid. The number of adult and childhood TB cases reported each month varies from 165 in December to 257 in October, with an average of 212 cases per month. The percentage of childhood TB cases out of the total TB cases also fluctuates from 4% in April and May to 9% in November, with an average of 6.3% per month. The table suggests that there is a seasonal pattern in TB case notifications, with higher numbers and percentages in the second half of the year, especially in the last quarter.

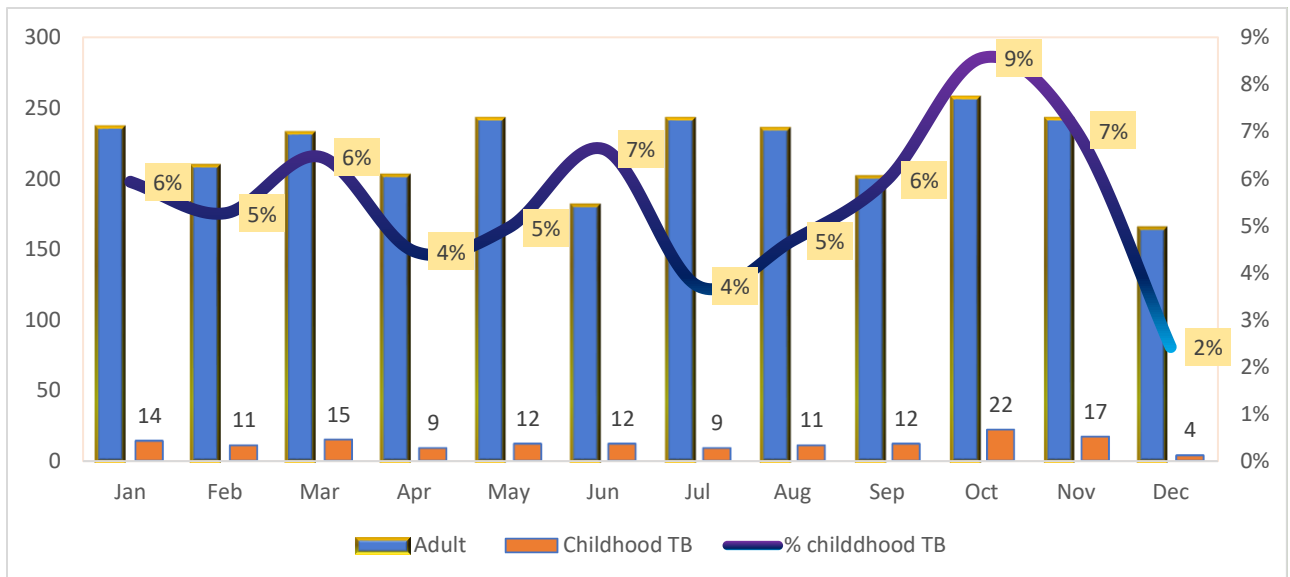


Figure 2: Case notification (Adult Vs Childhood TB)

## 2.4 Drug Resistant TB

The national drug-resistant TB case notification has seen marked improvements. The estimated incident DR-TB cases was 57 at 2 per 100,000 population. The figure below shows the trend in case notification with 2023 having the highest number of cases notified (22 cases) in any single year. However, compared to the WHO estimate, only 35% was achieved. As per the NSP target, the number of cases estimated is 24 while the notified cases was 22. This translates to a 92% achievement. All patient that meets the criteria for ambulatory care are currently on DR-TB community DOT.

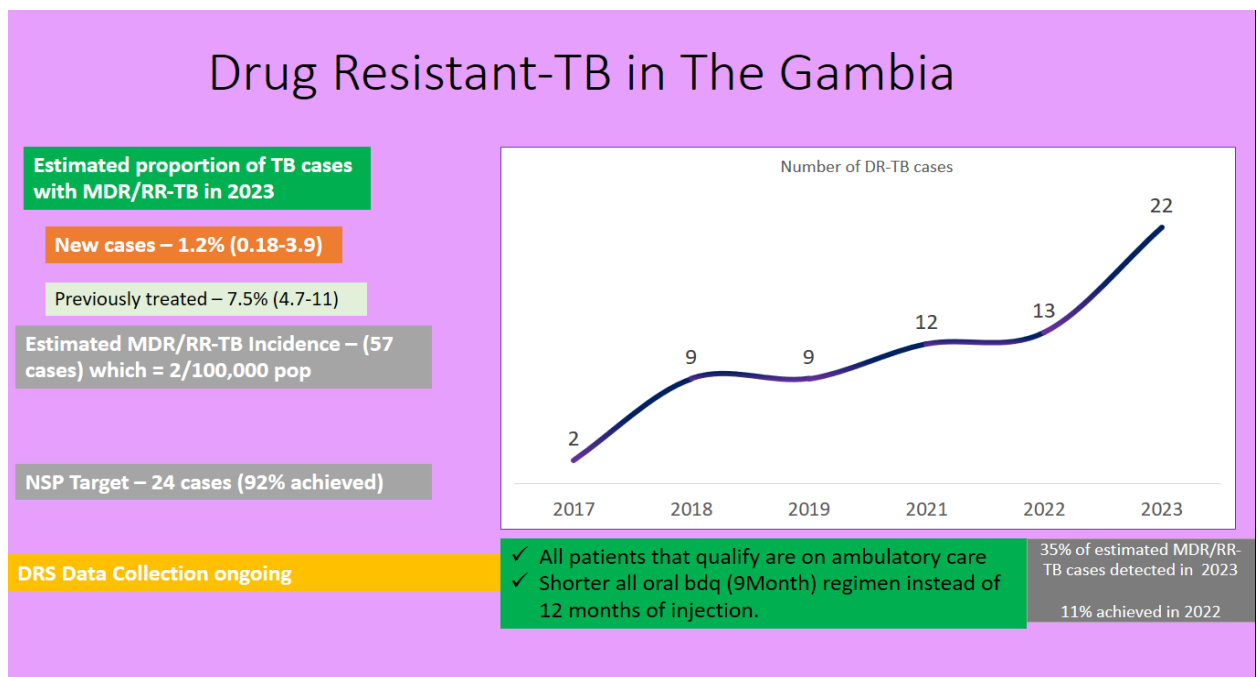


Figure 3: Drug Resistant TB

## 2.5 TB/HIV

The table shows the number and proportion of TB and HIV co-infection in different regions of The Gambia. The number of TB cases notified ranges from 74 in North Bank West to 1443 in Western 1, with a total of 2792 cases notified across the country. The number of TB patients who received an HIV test, is slightly lower than the number of TB cases notified in each region, except for North Bank West where (73/74 = 99% testing coverage was achieved).

Table 2 TB/HIV HCT uptake and enrollment into care

Region	Number of TB cases Notified	TB patient tested for HIV	HIV Positive TB patients	HIV Positive TB patients on ART
Central River	210	167	18	17
Lower River	100	79	14	13
North Bank East	125	135	17	18
North Bank West	74	73	4	4
Upper River	166	157	23	23
Western 1	1443	1339	145	131
Western 2	674	659	110	108
Total	2792	2609	331	314

Across the country the total number of TB patients tested for HIV is 2609, which translates to 93.4% of the total notified TB cases. Of the 2609 TB cases tested for HIV, a total of 331 were HIV positive. This means that 12.7% of the TB

patients were co-infected. Enrollment of HIV positive TB patients on ART remains a priority. Among the co-infected cases, 306 (92.4%) were enrolled on ART.

Table 3 TB/HIV testing (percentage)

<b>Region</b>	<b>% tested</b>	<b>% Positive</b>	<b>% Enrolled on ART</b>	<b>% Enrolled on CPT</b>
Central River	80%	11%	94%	94%
Lower River	79%	18%	93%	86%
North Bank East	100%	14%	100%	100%
North Bank West	99%	5%	100%	100%
Upper River	95%	15%	100%	100%
Western 1	93%	11%	90%	94%
Western 2	98%	17%	98%	96%
Total	93.1%	12.7%	94.5%	95.2%

Treatment Outcome of HIV positive TB patients shows a similar trend to HIV negative cases. Of the 317 HIV positive TB cases diagnosed and managed in 2022, 263 (83%) were treated successfully while 10% died. Treatment Failure and lost to follow-up among this sub group was very minimal at 1% and 3% respectively. Three percent (3%) of cases were not evaluated.

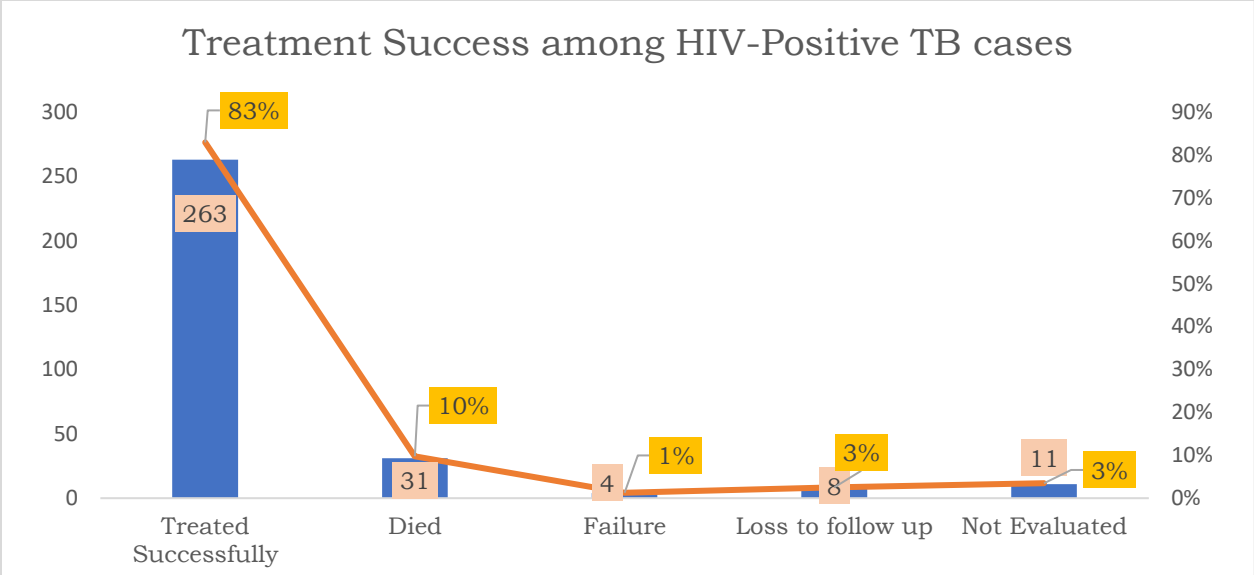


Figure 4 treatment outcome of HIV positive TB cases (2022 cohort)

**2.6 Contact Investigation & Tuberculosis Preventive Therapy**

Contact investigation activities continue to be suboptimal, of the 2224 bacteriologically diagnosed TB patients, 1788 (80%) were contact traced/brought contacts to the clinic. This means 20% of bacteriologically diagnosed TB patients with potential TB contacts were not visited or have not brought their contacts to the clinic, making it difficult to break the chain of transmission. Eight (8) patients were diagnosed with TB from the contact tracing efforts. Of the 1156 contacts eligible for TPT, only 923 (80%) were enrolled on TPT, again leaving 20% of contacts with potential risk of developing TB who are not being prevented. Of the 766 patients that have commenced TPT in 2022, 100% have completed the 6 months INH.



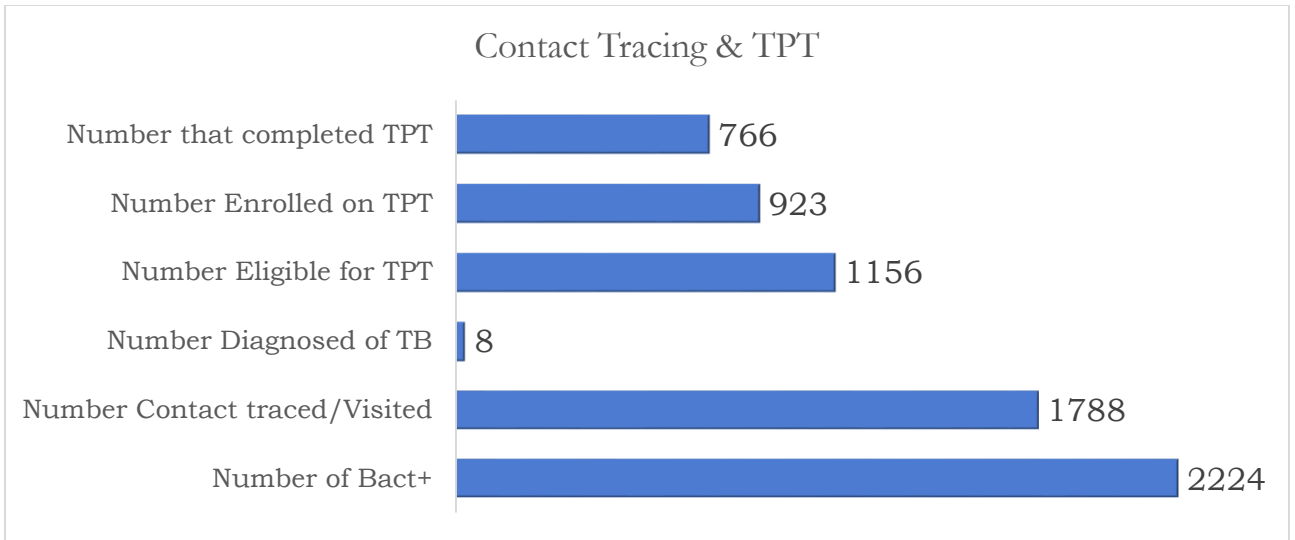


Figure 5: Contact Tracing & Tuberculosis Preventive Therapy

### 2.7 TB Treatment Outcome (2022 Cohort)

The TB treatment outcome for The Gambia has been above 80% in the last decade. Trends show improvements in the treatment outcome of cases diagnosed in 2022 as compared to those diagnosed in 2021, 84% vs 86% respectively.

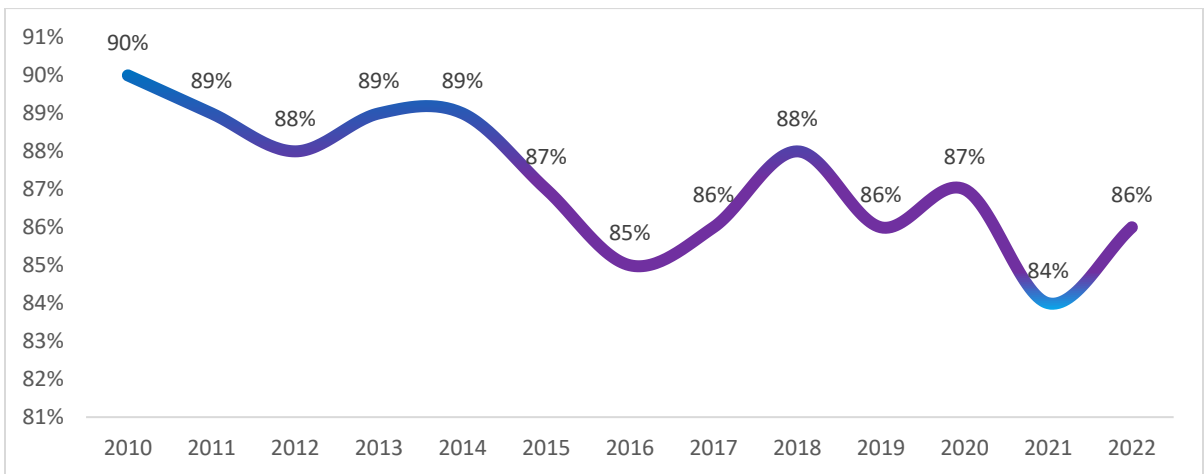


Figure 6: TB treatment Success trend

The review of the 2022 cohort reveals that, of the 2576 cases diagnosed in 2022. 2231 (86%) were successfully treated (Cured + treatment complete), 116 (4.5%) have died, 40 (1.6%) have failed treatment, 164 (6.4%) were lost to follow-up while we have 25 (1%) patients whose outcomes were not declared to the NLTP or were not evaluated for the TB outcome.

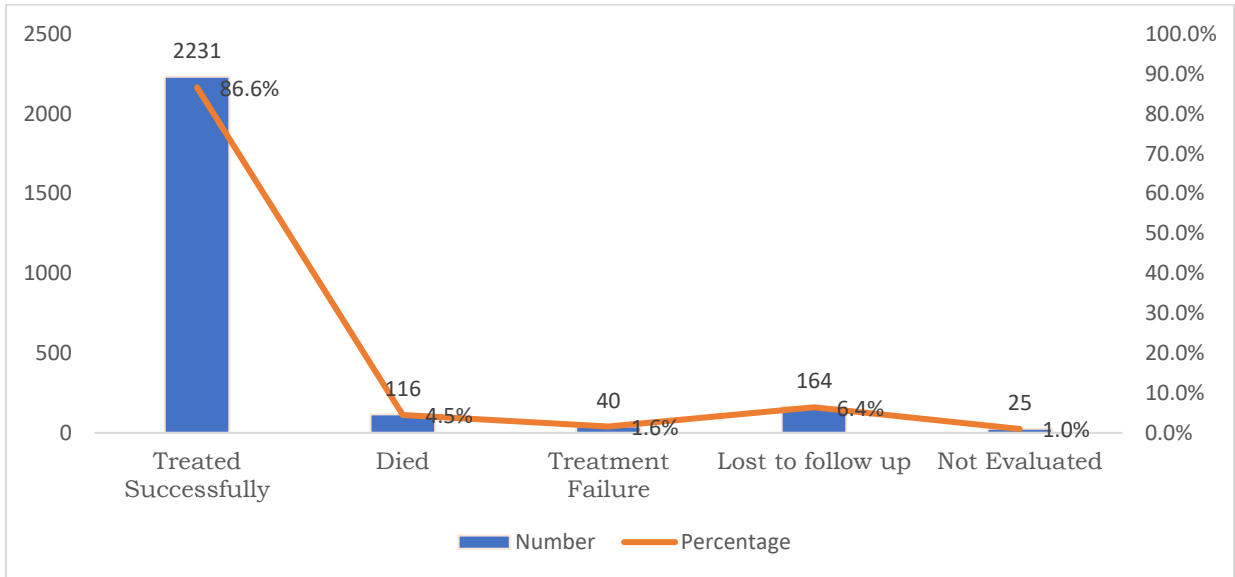


Figure 7: **TB treatment outcomes 2023**

## 2.8 Number of notified Leprosy Cases

For the period January to December 2023, 6 facilities have reported cases of Leprosy. In total seven (7) cases have been diagnosed. All the notified cases are accessing treatment at various facilities.

Table 4: Number of notified Leprosy cases 2023

Facility	Q1	Q2	Q3	Q4
Kanifing General Hospital	1	0	0	0
Brikama District Hospital	2	0	0	0
Serrekunda Health Centre	1	0	0	0
Basse District Hospital	1	0	0	0
Diabugu Health Centre	0	1	0	0
Total	5	1	0	0

## 3. Diagnostic & Treatment Services available in The Gambia

### 3.1 Molecular diagnostics test available in The Gambia:

#### a. Gene-Xpert testing:

The use of GeneXpert for Xpert MTB/RIF assay, which utilizes PCR technology, has indeed revolutionized TB diagnostics globally, offering significant advantages over traditional methods like sputum smear microscopy. In The Gambia, the availability of GeneXpert machines in 16 strategically located sites across the country, including reference laboratories and specialized teaching hospitals, underscores the country's commitment to combating TB effectively. Xpert MTB/Rif Ultra assay is

available at all 16 sites while Xpert MTB/XDR assay is only available at the National Tuberculosis Reference Lab (NTRL). The initiation of the Sample Referral Network (SRN) has further boosted access and utilization of GeneXpert testing. All the peripheral laboratories have access to Xpert MTB/RIF assay through SRN pilot sites (Bwiam General Hospital, Farafenni General Hospital, Bansang Hospital & Basse District Hospital).

**b. Line Probe Assay (LPA):**

Line Probe Assay (LPA) is a rapid molecular diagnostic test that revolutionizes the detection of drug-resistant tuberculosis (TB) in The Gambia. Utilizing nucleic acid amplification technology, LPA enables simultaneous detection of multiple genetic mutations associated with resistance to key anti-TB drugs, enabling the classification of patients with RR-TB, MDR-TB or Pre-XDR-TB. This method offers several advantages over traditional culture-based methods, including significantly reduced turnaround time, allowing for prompt initiation of appropriate treatment. The use of LPA at the NTRL plays a crucial role in reducing turnaround time for diagnosis of drug-resistant Tuberculosis.

### **3.2 Non-molecular diagnostics test available:**

#### **a. Culture:**

Culture remains the gold standard for the diagnosis of TB, offering unparalleled sensitivity and specificity in detecting *M. tuberculosis*. Unlike rapid molecular tests that detect the genetic material of the bacteria, culture involves growing the bacteria in a specialized medium under controlled conditions. While it may take several weeks to obtain results, culture provides valuable information about the viability of the bacteria which is crucial for guiding treatment decisions and allows for drug susceptibility testing for the detection of drug-resistant TB cases. Despite the advent of rapid molecular tests, culture remains indispensable, particularly in cases where molecular tests yield negative results or for monitoring treatment response in DR-TB. The NTRL continue to provide culture for cases requiring further diagnostic or treatment monitoring.

#### **b. Microscopy:**

Microscopy has long been a cornerstone in the diagnosis of TB, offering a cost-effective method for diagnosing TB. Microscopy enables the direct visualization of acid-fast bacilli (AFB) in clinical specimens. While less sensitive than culture or molecular tests, microscopy remains a crucial tool for the diagnosis and monitoring of TB patients in The

Gambia, particularly in settings where GeneXpert may not be readily available. Rapid detection of AFB through microscopy allows for prompt initiation of treatment, reducing transmission and improving patient outcomes. Despite advocacy for the use of the Xpert MTB/RIF assay as the first-line test, microscopy remains an approved diagnostic tool for TB in The Gambia.

## 4. Strategies & Interventions

**Introduction:** During the year 2023, the NLTP has conducted a series of activities geared towards improving Leprosy and TB service delivery in the country and contributing to the overall reduction in Leprosy and TB incidence. Activities were conducted in a collaborative manner and with partners, and the successes registered were a collective win. Activities implemented broadly were:

**4.0 Capacity Building:** The NLTP was engaged in a series of activities geared towards building the capacity of staff at the central, regional and facility levels. These activities are categorized into facility-based training, community-based training and overseas short-term training.



#### 4.0.1 Facility-based training:

- a. **Training on MDR-TB:** The diagnosis and management of MDR tuberculosis remain challenging since very few facilities are providing MDR therapy. Expanding the pool of healthcare workers capable of treating cases of multidrug-resistant tuberculosis was imperative, given the implementation of the all-oral shorter regimen for ambulatory patients. The use of the shortened regimen was one of the training topics covered for fifty (50) HCWs in the management of MDR-TB.
- b. **Training of HCWs on Tuberculosis Preventive Therapy recording & Reporting:** forty-seven (47%) HCWs from both DOT and ART sites have received training on the recording and reporting tools pertinent to TPT administration and submitting all such data to the national data repository as part of the efforts to scale up TPT to all ART site. Topics covered included recording & Reporting tools. To further clarify, the reasoning and suggestions for the administration of TPT, a clinician was brought in as a subject matter expert.
- c. **Training on TB screening, diagnosis, treatment and care:** For the purpose of TB screening, diagnosis, treatment, and support, a number of training sessions were held. These



include training HCWs how to find and manage cases of pediatric tuberculosis, training OPD staff how to find cases in facilities, re-training LTIs in case finding, re-orienting PMTCT staff and staff working at mobile outreach clinics on how to find cases of pediatric tuberculosis. Training Medical Doctors how to screen for, diagnose, and treat tuberculosis, including giving advance care was also part of the modules covered. The goal of all of these training sessions is to enhance facility-based staff members' ability to recognize, diagnose, and treat tuberculosis cases. In all, NLTP has capacitate over 110 HCWs in 2023.

#### **4.0.2 Community-based sensitizations:**

- a. Stigma reduction:** In the battle against tuberculosis, the associations of Ex-tuberculosis patients have partnered with the NLTP. Thus, those who have been stigmatized themselves may be the most qualified to tackle destigmatizing tuberculosis. To increase their capacity for community stigma reduction initiatives, the Ex-TB Patients Association received sensitization on stigma reduction.

#### 4.1 Collaborations with partners:



Annual collaborative meeting with neighboring Senegal

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##### **a. Annual collaboration meeting with neighbouring**

**countries:** As part of its efforts to combat cross-border tuberculosis, the NLTP holds collaborative meetings with Senegal, a neighbour. Senegal and The Gambia have a long history of working together, and during discussions, they have shared best practices, challenges and way forward. Both nations acknowledged the difficulties in tracking defaulters and locating household contacts in cases of tuberculosis that traverse international borders. NTP-Senegal welcomed the team, which included staff from NPHL, NLTP, NACP and NAS and the delegation was led by the Deputy Director of Health Services.

**b. External Quality assurance of the NTRL by the Supra-National Reference Laboratory (SRL) :**

The SRL Cotonou is a WHO accredited Reference Laboratory that provides technical capacity for NTRL the Gambia and other NTRLs within west and central Africa to perform AFB microscopy, culture, identification, and drug susceptibility testing (DST) of *M. tuberculosis* using phenotypic and molecular methods according to current WHO policy guidance. In addition, they provide external quality assurance and technical support in national tuberculosis laboratory network management through EQA panels samples and leadership training respectively. As such, in 2023, the NTRL the Gambia benefited from two main activities: 1) EQA panels samples for AFB Smear Microscopy, Xpert MTB/RIF Assay and DST (phenotypic and genotypic) for both first and second anti-TB drugs for round 26 and 27) An International Course on Applied Mycobacteriology (ICAM) training for laboratory managers.

The result for the DST panel showed a significant achievement made by the NTRL, The Gambia. NTRL the Gambia demonstrated acceptable proficiency for performing genotypic DST to detect resistance to rifampicin, isoniazid, kanamycin, amikacin, levofloxacin and moxifloxacin with

≥95 % accuracy. In addition, the laboratory has acceptable proficiency for performing phenotypic DST to detect resistance to rifampicin and isoniazid with ≥95 % accuracy. However, the feedback for AFB smear microscopy and Xpert MTB/RIF Assay is yet to be received from SRL. These results reflect the level of quality laboratory service offered by the NTRL Gambia to ensure quality TB case detection, treatment monitoring and drug resistance surveillance in the Gambia. The ICAM course was successfully completed by two NTRL staff, the Laboratory manager and a subordinate. This training was geared toward enhancing the management skills of NTRL managers in West and central Africa.

- c. **Support the annual production of radio adverts:** The NLTP in 2023 funded the production of radio advertisements in four local languages that were aired throughout the nation in an effort to de-stigmatize TB and raise public awareness about the disease. Additionally, in an effort to destigmatize and raise public awareness about tuberculosis, the Leprosy and TB Control Officers have participated in radio talk shows like Coffee Time.

## **4.2 Improved service delivery:**

As part of activities geared towards to improvement of TB service delivery, NLTP engaged in the following activities:

- a. Central and Regional quarterly TB/HIV meeting:** As we intensify efforts and work closely with the NACP of the Ministry of Health, The highly recommended TB/HIV coordinating committee meetings were held at the national level and in all regions of the nation to discuss service delivery and how to better improve on TB and HIV coordination across all levels.
- b. Social and Nutritional support for TB patients:** During the period, quarterly social and nutritional support was provided by the NLTP to about 22% of TB patients (co-infections, MDR-TB, and childhood TB cases). This is provided to each diagnosed patient in the chosen group in the form of money and food condiments. This is done in a bid to ensure treatment adherence and improve treatment outcome.

## **4.3 Active Case Finding:**

Several active case-finding activities were conducted during the period January- December 2022. These series of activities include:



**a. Active case finding in madrassa schools:** Since madrassas may serve as hotspots for TB due to their congregate nature, it is necessary to actively seek cases in these settings. Although the ACF program did not result in any TB cases, it was an opportunity to collaborate with partners in the education sector and raise awareness among teachers and students. The NLTP was able to screen over 100 kids for TB.



**b. Active case finding in prisons:** The NLTP is addressing the specific challenges posed by the congregated nature and overcrowding of prisons in TB control efforts. Engaging in semesterly case-finding activities, especially in collaboration with the NPHL, demonstrates a proactive approach to identifying presumptive TB cases within these high-risk environments. Active case finding (ACF) activities, such as the recent one in prisons, are crucial for detecting TB cases that might otherwise go unnoticed, as evident by the identification of two TB cases in the just-concluded ACF. This proactive intervention not only helps in ensuring the health and well-being of incarcerated individuals but also contributes to broader TB control efforts by reducing transmission within prison settings and the broader community.

**c. Active case finding for targeted risk groups:**

Conducting active case finding (ACF) targeting at-risk groups is a strategic approach to identifying TB hotspots and ensuring early detection and treatment. Collaborating with organizations like the Gambia Ports Authority and the NPHL demonstrates a commitment to leveraging partnerships for effective TB control efforts. The day-long community activity aimed at sensitizing dock workers in The Gambia about TB is crucial for raising awareness and dispelling myths or misconceptions surrounding the disease. By educating individuals about TB symptoms and the importance of early diagnosis and treatment, the dock workers were empowered to take proactive steps towards their health. The collection of samples from presumptive TB cases during the event is a significant step towards timely diagnosis and intervention.





#### **4.4. Monitoring, Evaluation, Research & Innovation**

**a. Monitoring of TB DOT sites:** the NLTP takes a proactive approach in engaging healthcare workers (HCWs), and Regional Health Management Teams (RHMTs) to address challenges in program implementation. By fostering open communication and collaboration, NLTP can effectively identify and address barriers to TB control efforts at the service point level. Emphasizing data quality in monitoring and supervision is essential for ensuring accurate information and informed decision-making. Reliable data not only helps in tracking progress but also enables the program to identify areas for improvement and allocate resources effectively. The emphasis on supportive supervision is particularly commendable. Beyond addressing data and operational challenges, supportive supervision plays a crucial role in capacity building. By providing guidance, training, and mentorship, NLTP is investing in the professional development

of staff at service points, ultimately enhancing the quality of TB care delivery.

**b. Conduct Annual Data Quality Audit:** External data quality audits conducted in collaboration with the HMIS-MoH, M&E unit at the Directorate of Planning, and NAS (National AIDS Secretariat) are an essential component of ensuring the reliability, validity, and accuracy of TB data. By involving external stakeholders with expertise in data management and monitoring and evaluation, NLTP can benefit from independent assessments of its data quality processes.

Collaborating with these entities demonstrates a commitment to transparency and accountability in data management. External audits provide an objective evaluation of data collection, recording, reporting, and analysis procedures, helping to identify any gaps or inconsistencies that may exist. Furthermore, involving key stakeholders from the Ministry of Health and relevant directorates ensures alignment with national standards and guidelines for data management. It also facilitates coordination and harmonization of data collection efforts across different health programs, leading to more comprehensive and integrated health information systems.

**c. Research and Innovation:** the NLTP recognizes the importance of research and innovation in advancing TB care and prevention efforts. Undertaking research initiatives can lead to groundbreaking discoveries, improved treatment strategies, and enhanced prevention measures. The following were some researches undertaken by NLTP during the period:



**I. TB patients catastrophic cost survey:** The completion of the study initiated in 2022, aiming to assess the catastrophic costs incurred by TB patients to access services, represents a significant milestone in the NLTP's efforts to address TB-related financial burdens. The finding that 39% of TB patients experienced catastrophic costs is concerning and underscores the importance of further interventions to alleviate this burden.

Moreover, the fact that 100% of MDR-TB patients were affected by catastrophic costs highlights the disproportionate financial strain faced by individuals with drug-resistant forms of TB. This underscores the urgent need for targeted support and interventions to mitigate the

financial impact on these vulnerable populations.

Moving forward, the NLTP can use these findings to inform policy decisions and develop targeted strategies to reduce the economic barriers to TB care and treatment. This may include measures such as expanding social protection programs, improving access to affordable diagnostics and medications, and strengthening health systems to provide comprehensive and integrated care.

Ultimately, the NLTP's goal of ensuring that no families experience catastrophic costs due to TB is a noble aspiration, and efforts must continue to be intensified to achieve this objective

**II. National Survey of Drug Resistant TB:** Embarking on a national survey of drug-resistant TB in 2023 represents a significant commitment by the NLTP to accurately determine the true burden of DR-TB in The Gambia. Relying solely on model estimates can sometimes lead to inaccuracies or uncertainties, so conducting a comprehensive survey is essential for obtaining reliable data. This massive undertaking demonstrates NLTP's dedication to evidence-based decision-making and strengthening the foundation for TB control efforts. By conducting a national survey, NLTP can gather direct and precise information on the prevalence and distribution of drug-resistant TB across different regions and populations. The results of such a survey will be invaluable for guiding resource allocation, planning targeted interventions, and monitoring progress towards TB control goals.

## 5. Strategic Achievements

**5.1 Reduction in TB incidence:** The Gambia has witnessed a significant reduction in TB incidence from 158 in 2020, 149 in 2021 to 145 in 2022. Although, the TB incidence is showing declining trends, even if they fall short of targets set in The NSP, this indicates that interventions and strategies are having some level of impact. It is crucial to continue supporting these efforts to further reduce TB incidence and meet the End TB targets.

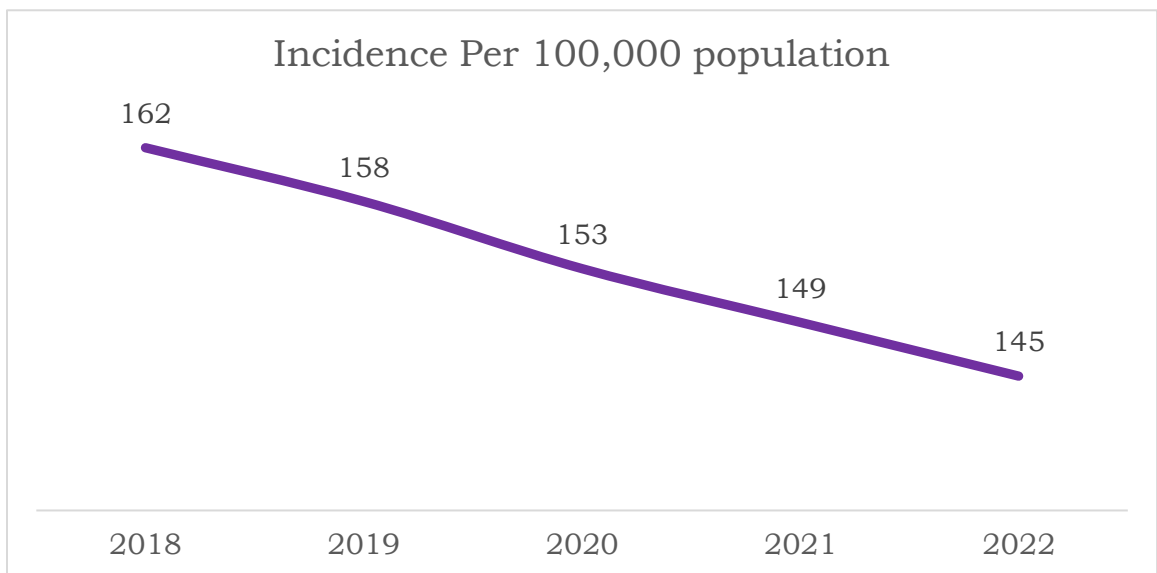


Figure 8 TB incidence per 100,000 population

## **5.2 Maintaining Leprosy Elimination target:**

The Gambia continues to maintain elimination targets for leprosy at less than 1 case per 10,000 population. Currently, according to WHO estimates, the incidence of Leprosy stands at 3.8 per 100,000 population. While there is limited funding for Leprosy, the program continues to ensure surveillance, provision of drugs and essential supplies for leprosy care and prevention.

## **5.3 High treatment Success rate for both TB & Leprosy:**

Over the past decade, The Gambia has consistently maintained a TB treatment success rate of not less than 80%. Recent data indicates a positive trend, with treatment outcomes showing improvement from 84% for cases diagnosed in 2021 compared to 86% for those diagnosed in 2022. In 2021, there were eight diagnosed cases of Leprosy, as indicated in Table 5. Of these cases, two were diagnosed and managed at Brikama District Hospital but experienced a restart in treatment. The treatment success rate for Leprosy within the 2021 cohort is reported at 75%.

Table 5 Notified cases of Leprosy & Outcome 2021 cohort

Facility	2021			
	Q1	Q2	Q3	Q4
Bansang Hospital	0	0	0	0
Kanifing General Hospital	0	0	0	0
Basse District Hospital	0	0	0	0
Serrekunda Health Centre	2	3	0	1
Brikama District Hospital	0	0	2	0
Farafenni General Hospital	0	0	1	0
Total	2	3	3	1

#### 5.4 Addressing the financial burdens associated with tuberculosis (TB):

Findings from a survey conducted among TB patients revealed that an alarming 39% faced catastrophic costs linked to their TB treatment. In response, the program, bolstered by support from the Global Fund, has initiated a comprehensive strategy. This strategy involves the provision of social and nutritional assistance tailored specifically to TB patients, aiming to alleviate the financial strain they experience and ultimately reduce the catastrophic costs attributed to TB.

**5.5 Improved TB treatment coverage:** Amidst the COVID-19 pandemic, The Gambia experienced a notable setback in TB treatment coverage, witnessing a decline from 71% to 64%. However, in the aftermath of the pandemic, there has been a remarkable resurgence, with treatment coverage rebounding to 70%. This resurgence not only recaptures the progress achieved prior to the pandemic but also indicates a positive trajectory moving forward. The upward trend in treatment coverage post-

COVID is expected to solidify and contribute to continued advancements in TB management

## **6 Challenges**

### **6.1 High Number of missing TB cases:**

In 2023, the current TB treatment coverage has reached 70%, suggesting that 30% of TB cases are still unidentified and not receiving treatment. This gap becomes more pronounced when considering drug-resistant TB (DR-TB) and childhood TB cases. Among the estimated 57 incident DR-TB cases, only 22 were officially reported to the National Leprosy and Tuberculosis Program (NLTP), resulting in a coverage rate of 39%. Furthermore, concerning childhood TB, the NSP's target of 10% notification rate fell significantly short, with only half of the expected cases being reported. These statistics underscore the urgent need for enhanced efforts to identify and treat all forms of TB, particularly drug-resistant and childhood cases, to effectively combat the disease and prevent further transmission.

### **6.2 Integration of TB/HIV services:**

Despite the robust collaboration between TB and HIV programs, the integration of TB/HIV services at healthcare facilities remains less than optimal, with patients often being referred between separate centers for treatment. In response to this challenge, both programs are strategizing to implement several interventions aimed at integrating TB/HIV services more effectively



## **7. Way Forward**

### **7.1 Universal use of Gene-Xpert for diagnosis:**

Implementing Gene-Xpert as the primary diagnostic tool across all facilities within the TB laboratory network is a proactive approach that can significantly enhance tuberculosis detection and treatment. By communicating and practicing this standard protocol universally, healthcare providers can ensure timely and accurate diagnosis, especially for patients initially tested with smear microscopy.

Gene-Xpert's ability to detect not only tuberculosis but also rifampicin resistance in a single test is invaluable. Identifying rifampicin resistance early is crucial for appropriate treatment planning, as it often indicates multidrug-resistant tuberculosis (MDR-TB), which requires specialized regimens for successful management.

By integrating Gene-Xpert testing into the standard diagnostic algorithm for TB, healthcare systems can streamline the diagnostic process, reduce delays in initiating appropriate treatment, and ultimately improve patient outcomes. Additionally, widespread adoption of Gene-Xpert can contribute to the global efforts to control TB transmission and reduce the burden of drug-resistant strains

## **7.2 Introducing Shorter TPT regimens:**

Introducing shorter tuberculosis preventive therapy regimens represents a significant advancement in the national fight against tuberculosis. Traditional preventive therapy regimens, typically lasting six months, pose challenges in patient adherence and completion, leading to suboptimal outcomes. Shorter regimens, typically lasting three months, offer a more convenient and manageable alternative for both patients and healthcare providers. By reducing the duration of treatment, these regimens enhance patient adherence and reduce the risk of treatment interruption, ultimately improving the effectiveness of tuberculosis prevention efforts.

## **7.3 Introducing the BPaLM/BPaL regimens for the management of DR-TB:**

Introducing these novel regimens marks a significant breakthrough in the management of drug-resistant tuberculosis (DR-TB). Comprising bedaquiline (B), pretomanid (Pa), linezolid (L), and moxifloxacin (M), this novel regimen offers a potent combination of drugs with promising efficacy. The BPaLM/BPaL regimen represents a shorter and more manageable treatment option compared to conventional regimens, which often involve extensive duration and numerous adverse effects. By integrating these drugs into a streamlined regimen, healthcare providers can improve treatment outcomes while reducing the burden on patients undergoing DR-TB treatment.

#### **7.4 Complete the DR-Survey as planned:**

Completing the DR-Survey as planned is crucial to gaining comprehensive insights into the prevalence and patterns of drug-resistant tuberculosis (DR-TB) and a shift from reliance on model estimates. This survey serves as a vital tool in understanding the dynamics of DR-TB within communities, guiding targeted interventions, and optimizing resource allocation for effective management and control. By adhering to the established timeline and methodology, we ensure the collection of accurate data necessary for informed decision-making and policy formulation. Additionally, completing the DR survey as planned reaffirms our commitment to combating the spread of DR-TB and advancing towards the goal of the National Strategic Plan for Tuberculosis (2023-2027).

#### **7.5 Introduce case-based surveillance of TB:**

Introducing case-based surveillance of tuberculosis (TB) represents a paradigm shift in how we monitor and manage tuberculosis. Unlike traditional surveillance methods that focus solely on aggregate data, case-based surveillance delves into individual cases, capturing detailed information on patient demographics, clinical characteristics, treatment outcomes, and drug resistance profiles. By adopting this approach, healthcare systems can identify gaps in TB control efforts, detect outbreaks early, and tailor interventions to specific populations or geographical areas. Case-based surveillance also facilitates real-time monitoring of treatment adherence and response, enabling timely

interventions to prevent treatment failure or the emergence of drug resistance. Ultimately, implementing case-based surveillance of TB empowers the NLTP with actionable insights to optimize TB control strategies, reduce transmission, and improve patient outcomes.

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