



NLR Annual Report 2023 Nepal



[Nand Lal Banstola, 17 February 2024]

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1. Introduction

The Annual Report 2023 (AR23) describes the progress of the programmes and the organisational development in 2023 (January – December) and is produced under the responsibility of the Country Director.

1.1. General guidelines

The AR23 is much in line with the format and structure of the previous years. However, being this year the last of the MAS 2020-2023, We have included some space for reflection over the whole period. We kindly ask you to write this report in the clearest way possible and to follow the guiding questions provided. Be critical of your text. We encourage you to be open and honest and to reflect on success as well as unsucess.

1.2. Elements of Annual Report 2023

The AR22 contains the following elements:

Topic			Max pages
Summary			1,5 page
Programme	Country Analysis		1,5 page
	Per Zero	Context analysis	1 page
		Project analysis (incl. outcome harvesting)	No maximum
		Programme analysis	1 page
	Cross-cutting themes		1 page
	PMEL		0,5 page
Organization reflection			5 pages
Financial Report			0,5 page
Main reflection on the MAS – MAP 2020/2023			1 page
Conclusions and way forward			0,5 page

2. List of abbreviations

Please list the abbreviations used in this document in alphabetical order.

Abbreviation	Full
ANCDR	Annual New Cases Detection Rate
APO	Annual Plan Office
ARO	Annual Report Office

BCA	Blanket Contact Approach
CCA	Close Contact Approach
EDCD	Epidemiology and Disease Control Division
GLM	Global Leprosy Mapping
GPS	Global Positioning System
LCDMS	Leprosy Control and Disability Management Section
LPEP	Leprosy Post-Exposure Prophylaxis
MB	Multi Bacillary
NTDs	Neglected Tropical Diseases
OPD	Organizations of persons with disability
PB	Pauci Bacillary
PEP	Post-Exposure Prophylaxis
SDR	Single Dose Rifampicin
SWC	Social Welfare Council
WHO	World Health Organization

3. Summary

Context Analysis

Firstly, the Mass Drug Administration (MDA) campaign targeting Filariasis, while a national priority program, caused disruptions in districts endemic to leprosy due to inclusion in the initiative. During such a national priority program, it is recommended not to duplicate other activities so that leprosy fieldwork is stopped. Administrative hurdles from the Drug Department Administration (DDA) delayed the clinical trial of PEP++ and financial signatory issues in Madhesh Province hindered program alignment. Additionally, delays and instability in the Provincial Government of Koshi Province affected PHD support. There was the problem on giving specific responsibility of leprosy work to specific focal person for a long time. That hampered coordination between provincial and local level government authorities. Despite challenges, the leprosy program operated normally, with adjustments made during MDA campaigns and mitigating strategies employed.

Conclusions from the context analysis highlight notable increases in leprosy cases and child cases, indicating a 10% rise in new cases and a 148% increase in new child cases compared to the previous year. Notably, concerns arise from the transition to an aggregated data reporting system, raising questions about data reliability. Until a couple of years ago, case-based reporting was followed, but recently this has been changed to aggregated numbers. The trend shows an accidental increase in numbers after that, so there are some doubts about the reported numbers. Despite challenges, progress is noted in ongoing research projects such as the Impact of SDR-PEP and the PEP++ Program, with successful milestones achieved in clinical trials. Collaborative efforts between the Government and organizations like NLR have been crucial for project success.

Zero Transmission

In 2023, Nepal witnessed a significant increase in new leprosy cases, prompting a thorough context analysis to identify contributing factors. Situation remained same even in NLR Nepal supported areas. Such doubts have already been discussed in review meetings and NLR will try to identify contributing factors. Despite stability in case detection over the past decade, the surge in 2023 indicated ongoing disease transmission within communities, necessitating preventive measures. The evolution of post-exposure prophylaxis (PEP) initiatives, from LPEP to SDR-PEP, demonstrated positive outcomes, prompting strategic adjustments in program implementation based on effectiveness studies. Challenges persisted, particularly in identifying contacts in endemic areas and ensuring sufficient coverage, leading to the initiation of a new research project to assess SDR-PEP's impact comprehensively.

The implementation of SDR-PEP, alongside other projects under the Zero Transmission framework, showcased commendable progress in 2023. Notably, the blanket contact approach and the use of geospatial mapping technology enhanced intervention effectiveness. Despite facing financial constraints (There is limited budget with all partners including NLR Nepal on leprosy prevention and Mapping part specially) and ongoing discussions regarding program efficacy, collaborative efforts among government entities, NGOs, and international partners proved instrumental in achieving set targets of overall leprosy control program for 2023 (NLR Nepal target as per the Government recommendations). Continued support and modifications to program strategies remain essential to further enhance the effectiveness of PEP initiatives and advance Nepal's trajectory towards zero leprosy transmission.

Zero Disability

In 2023, the Prevention of Impairments and Disabilities (POID) project in Nepal made significant strides (many complications managed due to referral system this year compared to others) in

mitigating leprosy-related impairments and disabilities by emphasizing early diagnosis, comprehensive management of reactions and complications, and the provision of assistive devices and therapeutic services. Despite successes in engaging healthcare workers and implementing prevention initiatives at the community level, challenges arose from inadequate recording and reporting of impairments and deficiencies in the referral process for complex cases. Collaborative efforts are underway to enhance the recording and reporting system and address referral process issues, aiming to ensure the project's success. However, there's a recognition of the need to persist in addressing these challenges comprehensively.

The project faced obstacles in establishing and updating POID centres at the community level, which are crucial for providing sustainable impairment management services. For POID centres, there are no specific guidelines or budgetary support from the government, making it difficult to manage and that is also expensive for NGOs. This further creates the question of sustainability for coming years. While certain activities, such as the identification of impairment cases and provision of self-care skills, showed progress, there's a pressing need to establish and equip POID centres to address leprosy-related complications effectively. Despite challenges, efforts to facilitate referrals for complex cases to tertiary care centres have been notable, ensuring specialized attention and treatment for affected individuals. Additionally, discussions with affected individuals have informed effective intervention strategies, highlighting the project's commitment to enhancing disability and complication management in leprosy.

Zero Exclusion

In recent years, Nepal has made significant strides in promoting the social inclusion of individuals affected by leprosy, marked by a shift in perception from fear and exclusion to effective management and treatment. This transformation has been supported by advancements in medical science and the implementation of policies aimed at combating stigma and discrimination. Community-based approaches, including support groups and peer counselling programs, have emerged as vital resources, empowering affected individuals to advocate for their rights and participate fully in society. Despite these positive developments, challenges such as lingering stigma, disparities in access to healthcare, and discrimination, albeit on a smaller scale, persist, particularly in marginalized communities.

The "Zero Exclusion" project, implemented in 2023, focused on raising awareness, forging partnerships, and documenting instances of inclusion and exclusion practices. Notable achievements include extensive media coverage (due to sensitization of media people and involving them in several interventions) of exclusionary practices in the Far Western province, partnerships with community groups, and educational sessions on human rights. Successful initiatives, such as establishing organizations representing persons affected by leprosy and sensitizing the public through media campaigns, have led to noticeable shifts in community attitudes. However, challenges remain, including the need for continued advocacy, support for marginalized groups, and efforts to address social barriers hindering the implementation of existing policy provisions.

Moving forward, sustained investment in education, advocacy, and healthcare infrastructure, along with collaboration between governments, civil society organizations, and affected communities, will be crucial to overcoming remaining barriers to social inclusion. Efforts to raise awareness, expand networks, and engage political and community leaders will play a pivotal role in combating stigma, discrimination, and human rights issues related to leprosy. By leveraging resources and knowledge through partnerships and lobbying efforts, NLR can continue its progress towards creating a more inclusive and compassionate society for all individuals affected by leprosy.

Cross-cutting themes

Addressing stigma surrounding leprosy poses intricate challenges, with efforts focusing on disclosure preferences of affected individuals and conducting prioritized awareness campaigns in areas with heightened stigma levels. Gender-specific considerations are integrated into all aspects of leprosy programs, emphasizing early detection through gender-sensitive screening processes. Approximately 50% of leprosy cases affect females, underscoring the importance of addressing gender concerns within program frameworks, with plans for specific women empowerment initiatives from 2023 onward in NLR Nepal planning. The main women empowerment initiatives include female-focused sensitization/interaction programs, socioeconomic and educational support through lobbying, and treatment and complication management. Progress in Project Monitoring, Evaluation, and Learning (PMEL) includes extensive visit interventions, the development of mobile data collection systems, and regular review meetings for data analysis, fostering continuous learning and improvement in program implementation.

Organisation

Fundraising and Communications

Quality improvement and Organisational strengthening

Security and Risk management

Transition to an NNGO

During the reporting period of 2023, NLR Nepal engaged in extensive fundraising efforts, submitting six proposals and concept notes to various organizations. While one internal proposal was accepted, another research proposal to LRI was rejected, and two proposals were rejected outright. Efforts are ongoing to develop proposals in collaboration with leprosy-affected persons organizations in Nepal for advocacy work in leprosy. Additionally, NLR Nepal focused on building partnerships both nationally and internationally, reaching out to organizations and individuals working in the sectors of leprosy, disabilities, and other neglected tropical diseases (NTDs) to establish a consortium of partners and explore joint funding opportunities. Quality assurance remained a priority, with regular monitoring activities and financial audits conducted to ensure program integrity and effectiveness. Despite challenges in project functionality and capacity strengthening initiatives, NLR Nepal participated in significant international workshops and conferences, fostering collaboration and knowledge exchange. The transition to a national NGO continued smoothly, with increasing board involvement and structured decision-making processes. Cooperation with NLR IO, NLR Alliance, and other organizations, including FAIRMED, facilitated impactful collaborations and initiatives targeting NTDs.

Financial report

In 2023, NLR Nepal operated within an approved budget of NPR 99,543,206, with expenditures totalling NPR 93,984,979, accounting for 94% of the budget. The financial report provides a breakdown of expenses across various projects. The Leprosy Program for Zero Transmission utilized 99% of its allocated budget, while the Prevention of Impairments and Disabilities project expended 92%. However, the Leprosy and Social Inclusion initiative spent only 74% of its budget. The main reason for under-expenditure in this project is the failure to establish the POID centres. Since there was no government program allocated under this heading this year, both policy and financial problems arose. It was more expensive to cover all aspects of the POID centre, and the planned budget was not sufficient to cover it in the absence of matching funds. The LRI Research Project exceeded its budget slightly at 107%, while the What Matters Most project utilized 67% of its funds. The PEP++ Research Project and Capacity Development in Action project both utilized nearly their entire budgets at 99% and 98%, respectively. On the other hand, the Ending the Neglect of Leprosy within NTD Network in Nepal project utilized only 61% of its allocated funds (there are few more months left to complete this project). Overall, the organization managed its finances prudently, with most projects operating within or close to their budget allocations.

Main reflections on the MAS – MAP 2020/2023

The Main Reflections about the MAS/MAP 2020-2023 highlight several key observations regarding leprosy control and prevention efforts. Notably, there has been a decline in leprosy cases over the years (it seems increasing than the recent past year but if we compare with many years, the trend is decreasing), attributed to effective preventive measures like Single Dose Rifampicin Post-Exposure Prophylaxis (SDR PEP) and early case detection strategies. However, consistent patterns in disability prevalence and child cases require further investigation to understand contributing factors fully. Despite these challenges, there has been positive progress in coverage, contact tracing, and preventive measures, as evidenced by increased index cases covered, outreach efforts, and administration of SDR treatment. The engagement of community groups, integration of modern technologies, and successful project outcomes underscore the importance of continued innovation and adaptation in leprosy control efforts. Key recommendations include finalizing PEP modalities, improving recording and reporting practices, simplifying treatment (administration of SDR) approaches (health workers still feel the process lengthy including several items in the reporting process), and addressing fundraising challenges to sustain effective leprosy management.

Conclusions

The context analysis reveals a blend of progress and challenges in Nepal's efforts to combat leprosy and promote social inclusion. Despite disruptions from national Filariasis campaigns and administrative hurdles, the leprosy program operated effectively, albeit with adjustments during MDA campaigns. Concerns arise from notable increases in leprosy and child cases, highlighting the need for comprehensive preventive measures and robust data management. Notably, ongoing research projects and collaborative efforts between the government and organizations like NLR have been crucial for achieving set targets. The Zero Transmission, Zero Disability, and Zero Exclusion projects have made commendable strides in their respective areas, leveraging modern technologies and community engagement to enhance intervention effectiveness and social inclusion. However, challenges persist, emphasizing the importance of sustained investment, innovation, and collaboration to overcome barriers to leprosy eradication and inclusive societies.

In parallel, organizational endeavours in fundraising, quality improvement, security, and transitioning to a national NGO have been extensive, reflecting a commitment to program integrity and effectiveness. Financially, NLR Nepal managed its resources prudently, with most projects operating within or close to their allocated budgets. The MAS – MAP 2020-2023 period showcases a decline in leprosy cases attributed to preventive measures and early detection strategies, despite persistent challenges in disability prevalence and paediatric cases. Overall, the reflections underscore the importance of continued innovation, collaboration, and investment in overcoming challenges and advancing Nepal's trajectory towards zero leprosy transmission and inclusive societies, ultimately emphasizing the imperative of sustained efforts in leprosy control and social inclusion.

4. Programme

4.1. Context Analysis

A iteration of Mass Drug Administration (MDA) in 2023 targeting Filariasis has been carried out as a national priority program across several districts endemic to the disease. Some of the districts within our operational jurisdiction, particularly those endemics to leprosy, were included in this initiative, causing some disruption to our leprosy prevention and control efforts.

Unexpected administrative hurdles from the Drug Department Administration (DDA) delayed the clinical trial of PEP++ for a couple of months. Additionally, a significant challenge arose due to the lack of delegated financial signatory authority to Provincial Health Department (PHD) director in Madhesh Province. This situation has made it difficult to align the PEP++ program in Madhesh with essential financial protocols.

The Provincial Government in Koshi Province either experienced delays in formation or faced prolonged instability, significantly hindering PHD support and interventions in the province.

Despite these challenges, the leprosy program operated normally throughout the year. During MDA campaigns, adjustments were made in such a way that we negotiated health workers to run only the rifampicin administration without hampering MDA to our implementation districts. MDA is one of the National priority programs so that we can't run other programs to disturb its field interventions at the same time. We successfully negotiated with the DDA to address their concerns and obtained approval from the central office. While the financial signatory issues in Madhesh and the government formation in Koshi posed significant obstacles, we implemented mitigating strategies wherever feasible, particularly relying on support from the budget provided by NLR Nepal.

Table 1: Indicators on country level

Indicators on country level				
Annual new case detection rate in 2023	#	2522	Rate per 1,000,000	85
New child leprosy cases in 2023	#	181	Rate per 1,000,000 population of children	6.1
New grade 2 disabilities cases in 2023	#	189	Rate per 1,000,000 population	6.4
Is the Zero Leprosy Roadmap by the National Leprosy Program under development or implementation?	Yes			

All leprosy-related annual figures and indicators at the national level have shown an increase compared to the previous fiscal year. Particularly noteworthy are the increases in new cases and the case detection rate, as well as in child cases and their corresponding rates.

The number of newly detected cases has risen by 10%, from 2,225 to 2,522 cases. Moreover, there has been a substantial surge in new child cases, with an increase of 148% compared to the previous year, rising from 73 to 181 cases. Notably, out of the total number of child cases detected, 8

individuals were found to have visible impairments, with 6 cases originating from Madhesh Province and 2 from Sudur Paschim Province.

Below outlines the detailed national leprosy scenario in Nepal for the year 2023:

Figure 1: National leprosy trend Nepal

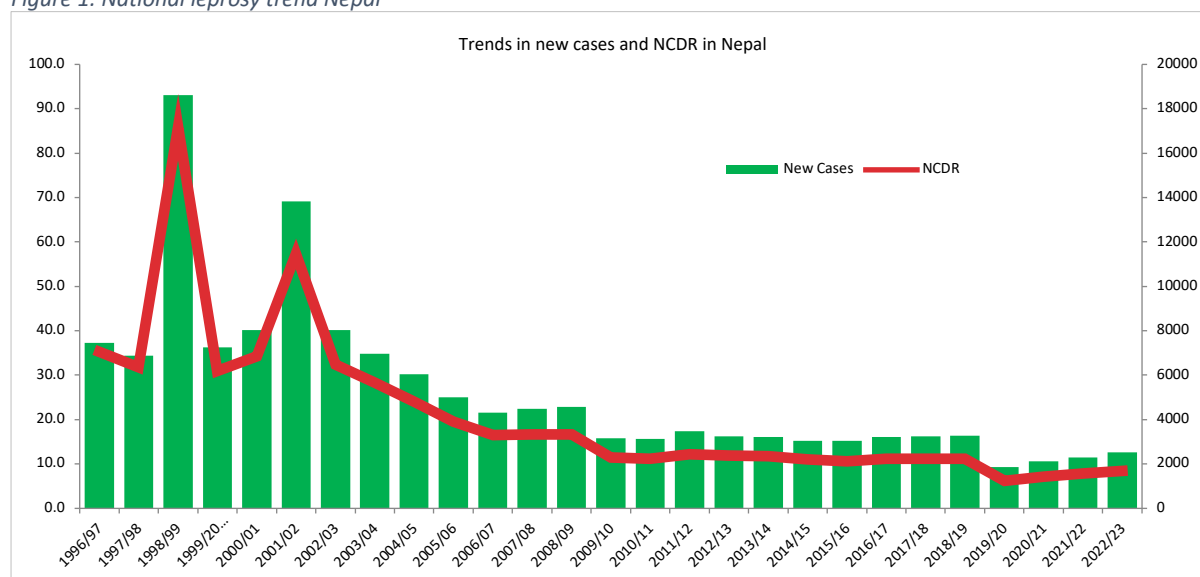
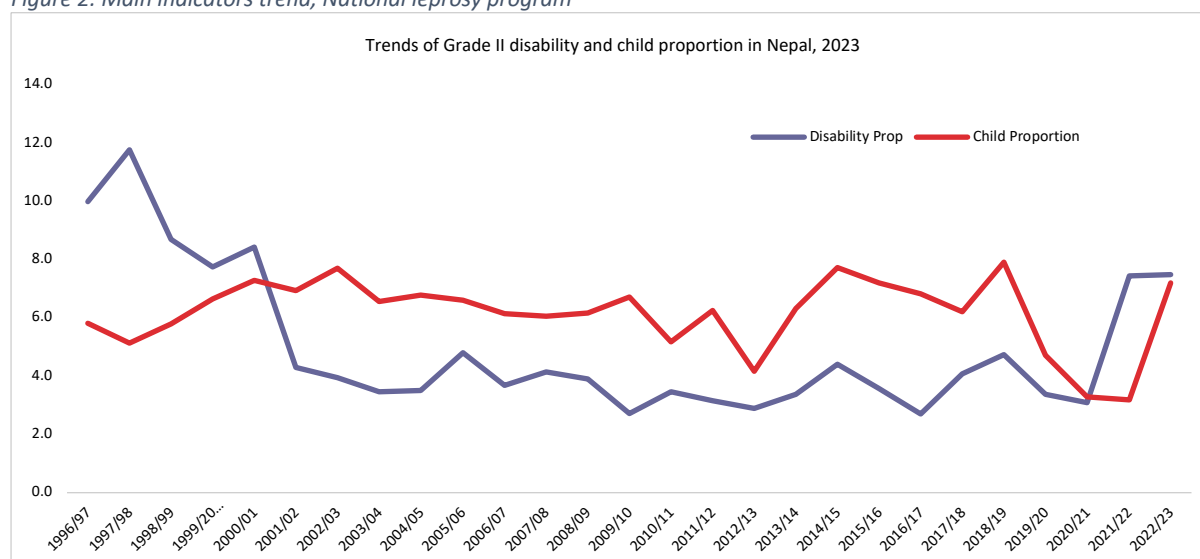


Figure 2: Main indicators trend, National leprosy program



The National Leprosy Program in Nepal is guided by both the National Roadmap for Zero Leprosy-Nepal (2021-2030) and the National Leprosy Strategy (2022 – 2025), which provide comprehensive frameworks for its operations. A midterm assessment (assessment was done from LCDMS) of the targets outlined in the zero-leprosy roadmap has indicated moderate progress but the detail findings is not yet shared. Additionally, the Leprosy Post-Exposure Prophylaxis (LPEP) Programme Guideline 2020, initiated by the Leprosy Control and disability Management Section (LCDMS), has been instrumental in providing clear guidance for post-exposure prophylaxis interventions nationwide. These significant milestones have greatly facilitated the effective implementation of leprosy control activities in Nepal.

However, it's noteworthy that leprosy reporting in Nepal utilizes an aggregated data reporting system through the Health Management Information System (HMIS), replacing the previous case-based system. This transition has raised concerns regarding the reliability and consistency of data reporting. During field-level data validation processes for leprosy, several inconsistencies have been identified. In some of the health institutions the HMIS reported figures and existing cases in the register are not matching. This discrepancy poses a significant challenge as it hampers the accurate identification of the real leprosy situation across the country. Cases based online reporting including spatial information of individual patient can improve such situation and will be helpful to discard or removing recycled cases.

In the year 2023, two research projects were continued and are currently ongoing under the auspices of NLR in Nepal. One of these projects investigates the "Impact of SDR-PEP under routine program conditions in Nepal," while the other focuses on "The PEP++ Programme." Significant progress has been made in both endeavours.

Field work and data collection for the PEP Impact assessment are nearing completion, demonstrating considerable advancement in this area. Furthermore, the PEP++ Program has achieved a significant milestone with the successful completion of the first round of clinical trials in Dhanusha and Mahottari.

The success of both research projects in 2023 has been greatly facilitated by the supportive collaboration and contributions from the Government, for which we are appreciative.

4.2. Zero Transmission

4.2.1. Context Analysis

The trend in new case detection has exhibited stability over the past decade, with a notable increase observed in 2023 compared to recent years. The introduction of the Leprosy Post-Exposure Prophylaxis (LPEP) initiative in Nepal in 2015 was prompted by the sustained rate of new case detection, indicating ongoing disease transmission within communities. While the LPEP pilot concluded in 2018, it evolved into the Single Dose Rifampicin Post-Exposure Prophylaxis (SDR-PEP) program, which has continued since then. Encouraged by the positive outcomes of these preventive measures, the government released the LPEP guidelines in 2020, subsequently refining them through the National Zero Leprosy Roadmap and the National Leprosy Strategy.

In 2023, a strategic adjustment was made to the SDR-PEP program based on findings indicating its enhanced effectiveness in areas with lower leprosy endemicity compared to hyper-endemic rural or urban municipalities. Studies, such as COLEP from Bangladesh, have shown lower effectiveness in close contacts, particularly within families (26%), but higher effectiveness among social and community contacts (68%). Additionally, distinguishing contacts in leprosy-endemic areas has proven challenging, leading to insufficient coverage under the current approach. To comprehensively assess effectiveness, a new research project titled "Impact Assessment of SDR-PEP under Routine Program Conditions in Nepal," funded by Leprosy Research Initiative (LRI), commenced in 2022. Fieldwork and data collection were completed in 2023, with detailed analysis expected to yield results by mid-2024. Consequently, an additional blanket contact approach, alongside the existing close contact approach, was initiated in 2023.

The blanket contact approach involves mapping and clustering using geospatial information of affected individuals. Clusters are defined as three or more cases within 300 meters in leprosy-endemic Tarai areas and two or more cases within 300 meters in low-endemic hills and mountainous regions. This approach extends SDR administration to both close contacts (household and neighbours) and additional community contacts, identified based on the established criteria. Contact tracing utilizes a newly developed GPX viewer technology on Android mobile devices.

The implementation of SDR-PEP primarily falls under the purview of government health institutions and workers, with support from NLR Nepal personnel in technical, logistical, and financial aspects. Rifampicin procurement from Provincial Health Directorates faces challenges in terms of adequacy and timeliness, prompting NLR Nepal to provide supplementary logistics. Given deficiencies in recording and reporting systems within the Health Management Information System (HMIS)/District Health Information System (DHIS), separate systems have been developed for proper recording and reporting of PEP interventions. On the request of Government, NLR has initiated this now, but the aim is Government system will incorporate this in future.

SDR-PEP interventions continued in 2023, targeting both previously identified index cases and their contacts from preceding years, as well as newly detected cases in 2023. The following outlines the specifics of SDR-PEP implementation, particularly in NLR Nepal-supported areas, including PEP++ data from the Madhesh province.

SN	Item	Unit	Sub Unit	2023
1	Numbers of Index cases Covered	Gender	Male	2,164
			Female	1,585
			Total Gender	3,749
2	Numbers of the districts covered	Number	Number	12
3	Numbers of the Municipalities covered	Number	Number	79
4	Numbers of the clusters covered	Number	Number	157
5	Numbers of the contacts listed		Close contact	81,849
			Community	32,905
			Total	114,754
6	Numbers of the contacts enrolled	Number	Number	112,097
7	Numbers of contacts with SDR administration	Numbers	Number	86,685
8	Numbers of Leprosy Detected	Numbers	Household	30
			Neighbour	54
			Social	0
			Community	12
			MB	42
			PB	54
			Total	96

4.2.2. Project Analysis

Table 2: Projects under Zero Transmission

Projects under Zero Transmission							
Project code	Name Project	Start date	End date	Implemented by	Funded by	Implementation status	Comments
NP001	<i>Leprosy Program</i>	2023	2023	National NGO	NLR IO	On track	
NP012	PEP ++ in Nepal	2022	2026	National NGO	NPL	On track	
NP014	<i>Impact of SDR-PEP under routine program conditions in Nepal</i>	2022	2024	National NGO	LRI	Ahead of schedule	
NP018	<i>Ending the neglect of leprosy within NTD network in Nepal</i>	2023	2024	National NGO	NLR IO	On track	

Projects under Zero Transmission							
Project code	Name Project	Start date	End date	Implement ed by	Funded by	Implementatio n status	Comments
	<i>Global Leprosy Mapping Project (GLM)</i>	2023	2025	PHD Madhesh	ILEP Project Reserve	On track	Just initiated in 2023 and will fully be functional from 2024 onward

Project 1. *Leprosy Program*

We conducted a series of trials for the Post-Exposure Prophylaxis (PEP) methods before 2023, transitioning from a mixed approach to a 'drive' strategy and a 'mop up' operational model, which remained operational throughout 2023. As of 2023, we adopted the comprehensive blanket contact tracing approach, extending it to encompass 'community contacts,' effectively covering 168 clusters across 7 Municipalities. By the end of 2023, our outreach extended to 79 Municipalities across 12 Districts in the Koshi, Madhesh, and Sudurpaschim provinces of Nepal.

During this period, we identified a total of 114,754 contacts associated with 3,749 index cases, enrolling 112,097 contacts into our program. Among them, 86,685 individuals received single doses of rifampicin. These interventions in 2023 led to the detection of 95 new leprosy cases.

Our Leprosy program successfully achieved its set targets for the year. According to government data from DHIS II, 701 new leprosy cases were reported in the NLR supported program areas (Koshi and Sudurpaschim), resulting in a case detection rate of 138.9 per 1,000,000 populations. Notably, 39 of these cases were children, with a child case detection rate of 6 per 1,000,000 populations. Additionally, 54 visible deformities were observed among newly detected cases, with a rate of 13 per 1,000,000 populations. Validation of these reported data is pending, however, there seems to be an unexpected increase in leprosy indicators. There could be three possibilities of such unexpected increase: a) the cases not diagnosed during COVID are being diagnosed now, b) there are maximum possibilities of recycled cases, and c) numbers are haphazardly entered in the system of HMIS but in reality, not that much numbers existing in the treatment register.

Overall, our program achievements have met expectations. The PEP program has smoothly progressed across all levels, with policy makers, planners, implementing partners, and health workers acquiring the necessary knowledge and skills for effective implementation. Utilization of geospatial mapping information, contact tracing via GPX viewer using Android Mobile, and the adoption of the Blanket contact approach have notably contributed to our success during this reporting period. Notably, we encountered no significant setbacks in the effectiveness of planned activities throughout 2023. The detail achievement of Leprosy program in 2023 is as follows:

SN	Leprosy program	Unit	Target	Achiev	Ach %

1	Collection of new cases detection information from district & Municipalities	Municipality	225	117	52%
2	Organize periodic review/monitoring meetings at different level	Meeting	70	37	53%
3	Monitoring visits to leprosy endemic Municipalities (data collection, on the job training)	Municipality	100	111	111%
4	Identification & varification/validation of reported new leprosy case	IC	1200	1435	120%
5	GPS coordinates collection of index cases	IC	1200	1435	120%
6	Identification of close contacts (CC)	CC	30000	61089	204%
7	Contacts enrolled for PEP interventions	CC	28200	58432	207%
8	IEC/BCC interventions on PEP	Municipality	100	111	111%
9	Logistic (RMP, form/formats) management for SDR PEP	Time	4	4	100%
10	Orientation & mobilization of community groups on sensatizing risk group populations	Time	65	43	66%
11	Consultancy support for data and management (staff recruitment)	Person	2	3	150%
12	Technical assistant on Mapping and clustering of index cases (hiring expertise or technical work)	Month	12	16	133%
13	Identification & location of Municipality clusters	Per day per FCHV	275	157	57%
14	Identification and location of blanket contacts	Per day per FCHV	275	157	57%
15	MoP up interventions on endemic clusters (Screening & SDR administration of blanket contacts)	Cluster	275	157	57%
16	Follow up visits of blanket contacts by community groups & volunteers	Place	275	143	52%

Project 2. PEP ++ in Nepal

The PEP++ initiative represents an advanced protocol for post-exposure prophylaxis, entailing the administration of three doses of Rifampicin and Clarithromycin on days 1, 29, and 57 (at four-week intervals) to contacts of a case. This initiative, launched in the Madhesh Province of Nepal, primarily targets the hyper-endemic districts of Dhanusha and Mahottari for leprosy. The overarching objective is to halt the transmission of *M. leprae* in the project intervention areas, ultimately aiming for zero new cases of leprosy in these regions. Ethical clearance for research activities was obtained from the Nepal Health Research Council (NHRC) in 2021.

Substantial progress was achieved in 2023, marked by operational adjustments and enhanced field-level efforts. Specific targets were assigned to Research Assistants (RAs), with increased flexibility in scheduling fieldwork, including work on Saturdays to maximize home

visitations. Additionally, incentives were augmented, and a robust tracking and monitoring system was implemented to ensure accountability and efficacy.

During this period, a total of 62,698 contacts associated with 2,314 index cases were identified, with 42,568 contacts enrolled in the PEP++ program. Among these, 38,799 individuals received single doses of Rifampicin and combinations of Rifampicin and Clarithromycin. These interventions led to the identification of 66 new leprosy cases in 2023.

The year 2023 marked a significant milestone for the PEP++ initiative in the Madhesh province of Nepal, with all performance indicators meeting expectations. This success can be attributed to the dedicated efforts of all stakeholders involved in PEP++ implementation and the establishment of clear targets for individual RAs, resulting in commendable outcomes.

Government personnel, including health workers and volunteers, underwent comprehensive training in PEP++ interventions, enhancing their support and minimizing community apprehensions regarding reported adverse events. Local leaders were sensitized to leprosy-related issues, fostering a positive reception of the provided medications within the community.

While most planned activities were successful, the implementation of Community Education and Behavior Change (CEBC) campaigns faced challenges. Despite efforts, only six municipalities were covered, with those receiving CEBC demonstrating better acceptance of PEP++ compared to others. The detailed achievements of the Leprosy program in 2023 are outlined as follows:

SN	PEP++	Unit	Target	Achievement	Achievement %
1	Mapping and clustering	Municipality	33	33	100%
2	Training of health workers	Person	40	57	143%
3	CEBC campaign	Municipality	33	6	18%
4	Door-to-door campaigns close contacts (Control)	Person	30000	30984	103%
5	Door-to-door campaigns close contacts (Intervention)	Person	30000	32231	107%
6	Contacts follow up (1st dose)	Person	20000	5446	27%
7	Contacts follow up (2nd dose)	Person	15000	3011	20%
8	Contacts follow up (3rd dose)	Person	15000	2451	16%
9	Research & Data Management	Time	12	18	150%
10	Review meeting	Time	3	3	100%
11	Monitoring and supervision	Municipality	33	33	100%
12	DSMC meeting	Time	4	4	100%
13	Scientific committee meeting	Time	4	4	100%
14	Drug procurement	Time	4	4	100%
15	Staff Induction and orientation	Person	35	35	100%
16	CLT Training	Person	25	57	228%
17	Advance Training on PEP and PEP++	Person	35	35	100%
18	Data Management workshop.	Time	3	3	100%

19	World Leprosy Day Celebration at office / Interaction with media.	Time	1	1	100%
20	Planning meeting and orientation at District Level	Time	2	3	150%
21	Coordination meeting with Health Office	Time	12	16	133%
22	Provincial level Meeting and workshop	Meeting	6	6	100%
23	Municipality level orientation	Municipality	33	33	100%

Project 3. Impact of SDR-PEP under routine program conditions in Nepal

This research project, supported by the Leprosy Research Initiative (LRI), aims to assess the impact of contact screening and Single Dose Rifampicin Post-Exposure Prophylaxis (SDR-PEP) implementation within routine leprosy control programs on leprosy case detection among contacts of leprosy patients, 4–7 years post the routine implementation of SDR-PEP in leprosy-endemic areas.

The study concluded in 2023, with pending data management and analysis. A total of 28,453 contacts of 1,555 index cases from 49 rural/urban municipalities across two control districts and two intervention districts were evaluated. Among these, 5,227 were family contacts and 23,225 were neighbor contacts, with females constituting 56% of the total contacts assessed. Suspected signs and symptoms of leprosy were observed in 131 individuals, with 123 individuals diagnosed with leprosy. Of those diagnosed, 62 individuals (50%) were family contacts, while the remaining were neighbor contacts.

The fieldwork for this research project, characterized by a substantial sample size, has been completed, yielding commendable achievements. While operational considerations are noteworthy, the primary focus lies on the forthcoming findings from the data analysis. A comprehensive article detailing the outcomes is scheduled for publication in the first half of 2024. The detailed achievements of the Leprosy program in 2023 are elaborated as follows:

	Intervention	Control	Total
Leprosy diagnosis team formed at the Municipalities	24	21	45
Municipality level meeting of related stakeholders	32	41	73
Municipality level orientation to health workers and volunteers	138	68	206
Team of contact screening and leprosy suspects	51	45	96
District wise contacts assessed	14248	14205	28453
District wise leprosy among contacts assessed	37	86	123
Leprosy detection among contacts assessed among SDR administration	37	0	37
Leprosy detection among contacts assessed without SDR administration	0	86	86

Project 4. Ending the neglect of leprosy within NTD network in Nepal

The prevailing circumstances in Nepal indicate a significant gap in the awareness and integration of leprosy within networks focusing on other Neglected Tropical Diseases

(NTDs). There is minimal collaboration between these networks and leprosy-specific groups and organizations, resulting in inadequate coordination and integration of efforts. Conversely, institutions dedicated to leprosy lack sufficient understanding of other NTDs, further hindering integration efforts.

In response to this situation, the "Ending the neglect of leprosy within NTD network in Nepal" project was conceived, funded with 'incidental funding' by NLR IO. Commencing in mid-2023, this project represents the first concerted effort by NLR Nepal to bridge the gap between leprosy and other NTDs within an integrated framework, a concept widely recognized yet challenging to implement in practice.

The initial phase of the project focused on conducting workshops, meetings, and mapping exercises to illustrate the co-endemic nature of diseases in select municipalities within the Koshi province of Nepal. While the project is still in its nascent stages, preliminary observations suggest a clear justification for its necessity.

Notably, government officials have shown support by agreeing to establish provincial-level committees/taskforces, and partners have begun recruiting community workers for data collection and community-level awareness activities. Despite the project's recent inception, several achievements have been realized within this short timeframe:

- Establishment of provincial-level committees/taskforces.
- Recruitment of community workers for data collection and awareness campaigns.

As the project progresses, further outcomes and results will be observed, contributing to the overarching goal of integrating leprosy within broader NTD networks in Nepal.

SN	NTD	Unit	Target	Achievement	Achievement %
1	Development and update NTD toolkit	Toolkit	1	0	0%
2	ToT for frontline NTD related human resources	Slot	13	5	38%
3	Development of comprehensive training package	Day	37	0	0%
4	Training for project team on leprosy and NTDs	Slot	3	3	100%
5	Organize workshop among NTDs implementing partners	Workshop	1	3	300%
6	Periodic Meetings with Government and I/NGOs to develop joint planning	Meeting	2	3	150%
7	Organize a workshop with federal and policy level stakeholders	Workshop	1	0	0%
8	Coordination meeting with NTDs and SDG Networks	Meeting	3	6	200%
9	Establishment of NTD inventory at National and provincial level	Province	3	1	33%
10	Mapping and clustering of NTD endemicity at all level	Province	3	1	33%
11	Establishment of functional taskforce at National and provincial level (Meeting)	Meeting	3	0	0%

12	NTD disease study (design/explore)	Day	36	16	44%
13	Monitoring and evaluation	Day	100	43	43%

Project 5. *Global Leprosy Mapping Project (GLM)*

In order to advance the attainment of global leprosy objectives, there is a pressing demand for enhanced leprosy data management and mapping systems. The establishment of the Global Leprosy Mapping Project aims to assist the Ministry of Health (MoH) in the revision and evaluation of previous years' leprosy data and indicators, alongside the digitization of case-based leprosy data and mapping through an online reporting platform in Madesh Pradesh, Nepal. Key activities encompass an appraisal of the current leprosy data infrastructure, prioritization of enhancements, capacity-building sessions for healthcare personnel in case-based data collection, validation of leprosy data via review sessions, and the development of best practices, guidelines, and tools for potential expansion to other provinces. This strategic approach is poised to enhance the precision of intervention targeting, facilitate advocacy and fundraising efforts, and reinforce Nepal's trajectory toward achieving zero leprosy cases.

In 2023, two inaugural meetings were convened at both federal and provincial levels. All stakeholders exhibited keen interest and articulated their perspectives on the imperative of instituting a case-based surveillance system in leprosy, which aligns closely with the primary objective of this project. An international team collaborated with local leprosy experts in Nepal to conduct a comprehensive assessment of the existing system and subsequently delineated the future requirements for this program. The project is slated for seamless continuation from 2024 onwards.

4.2.3. Programme Analysis

The 2023 case detection rate exhibits a marked increase compared to 2022, both at the national level and within NLR Nepal-supported project areas. Within these supported areas, there is a considerable rise in new cases, reflecting a 175 (33%) increase. A proper analysis and validation is still needed – planned in the first half of 2024. Although the trend displays some fluctuation, there is a discernible downward trajectory compared to the LPEP/SDR-PEP years. Additionally, indicators related to children and impairments demonstrate fluctuation in both Province Koshi and Province Sudurpaschim, as depicted in the table below:

	National	Province Koshi	Province Sudurpaschim
Detected new cases	2522	471	230
NCDR per 1,000,000 Populations	85	93	83
Child among new cases	181	24	15
G2D among new cases	189	46	19
Female among new cases	1049	158	97
G2D rate per 1,000,000 populations	6.4	9.1	6.9

All projects aimed at achieving zero transmission have shown remarkable success in the year 2023, yielding encouraging outcomes, albeit with some increase in new leprosy cases reported from leprosy endemic districts and municipalities. We have attained the anticipated results in line with our plans and set targets.

NLR Nepal's initiation of LPEP followed by SDR-PEP stands as a significant milestone in Nepal's leprosy elimination (disease elimination) efforts over the past eight years. Health workers, community health volunteers, policymakers, and planners are now well-versed with SDR-PEP and are capable of sustaining it through their efforts. However, due to the high disease burden in many districts, financial constraints pose a major barrier, prompting the government to seek support from partner NGOs continuously.

SDR-PEP, as an emerging concept in recent years, is still in the process of integration into various guidelines, training curriculums, and stakeholder motivation strategies. Further support from NGOs like NLR Nepal is crucial to achieving these goals. Collaborative efforts, such as the joint intervention in Kapilvastu district in 2023, where NLR provided technical assistance and supplies, WHO offered financial backing, and LCDMS partnered with the district to organize the program, exemplify the importance of such partnerships.

Certain aspects of the SDR-PEP program remain subjects of ongoing discussion. While awaiting specific scientific results from our impact assessment research scheduled for mid-2024, our preliminary observations suggest that the effectiveness of SDR-PEP in hyper-endemic areas warrants further investigation. Specifically, contact coverage, as defined by COLEP and Indonesia studies, appears inadequate to achieve targeted outcomes within the expected timeframe. To address this, modifications to the regimen or enhancements in contact coverage are potential avenues for improving effectiveness. We have already commenced initiatives to address these possibilities in Nepal, starting in 2022/2023 under the "Zero Transmission" framework, employing modified strategies and models such as Blanket Contact Coverage with mapping and clustered decision-making, GPX viewer for contact tracing, and follow-up of absentees. Support from the government and other stakeholders, including the National program, is instrumental in these endeavors.

4.3. Zero Disability

4.3.1. Context Analysis

The Prevention of Impairments and Disabilities (POID) project is dedicated to mitigating leprosy-related impairments and disabilities throughout the continuum of care, encompassing prevention efforts before, during, and after treatment. It emphasizes early case diagnosis, prompt identification of impairments, and comprehensive management of reactions and complications arising from leprosy. The initiative includes the establishment and upkeep of POID centers at various levels, capacity building for healthcare personnel in reaction and complication management, and the provision of assistive devices and therapeutic services through rehabilitation and referral centers, as well as other pertinent organizations.

During the reporting period, notable progress was made in engaging leprosy focal persons and healthcare workers in executing interventions aimed at preventing leprosy-related impairments. The successful implementation of leprosy prevention and control initiatives has positively influenced the project's focus at the community level.

However, a significant challenge encountered during this phase pertained to the inadequate recording and reporting of impairments, graded as 0, 1, and 2, within existing registries. This deficiency impeded trend analysis and hindered the planning of appropriate disability management interventions. To address this issue, collaborative efforts with relevant stakeholders have been

underway to enhance the existing recording and reporting system. Moreover, challenges in the referral process for complicated (or cases with impairment and other complications) cases from peripheral levels to tertiary referral centers have been identified, prompting lobbying efforts to rectify these issues, albeit with ongoing resolution efforts. Such challenges are from both, patient and referral center sides, from patient side they usually deny going for treatment. From referral center side because they do not support for the caretaker/s. Anyway, the additional cost is needed for the patient/s and there is also the concern about the duration, it generally takes longer in leprosy.

Additionally, efforts are being directed towards refining the assessment and interpretation of EHF scores to leverage this data effectively for informed decision-making and patient care. Moving forward, there is a recognition of the imperative to persist in addressing these challenges comprehensively to ensure the project's success.

It's noteworthy that the Leprosy Focal Point in Nepal, the LCDMS, amalgamates both leprosy control and disability management. However, the focus on disability management has somewhat deviated beyond leprosy, posing challenges to impairment prevention and management. To bridge this gap, NGO-supported tertiary-level referral centers have provided various forms of assistance.

4.3.2. Project Analysis

Table 3: Projects under Zero Disability

Projects under Zero Disability							
Project code	Name Project	Start date	End date	Implemented by	Funded by	Implementation status	Comments
NP016	<i>Prevention of impairments and disabilities</i>	2023	2023	National NGO	NLR IO	On track	
				Choose an item.		Choose an item.	
				Choose an item.		Choose an item.	

Project 1. Prevention of impairments and disabilities

One of the primary endeavours within the scope of our project involved the identification and conversion of select health institutions into POID centres. However, midway through the year, we opted to alter this approach. Concurrently, adjustments were made to ancillary activities, including the reinforcement of treatment and assistive/protective devices at the designated POID centres, which were deferred to a later period. These adaptations were prompted by insufficient alignment with governmental frameworks facilitating service delivery through Primary Health Care centres, which constituted our principal focal points.

Below are the key outcomes attained by the project in 2023.:

Prevention of impairments and disabilities	Unit	Target	Achievement	Achievement %
Selection of health institutions for POID centres	Meeting	15	5	33%

Training and refresher for health workers on leprosy complication management	Person	20	16	80%
Provisions of assistive and protective devices from POID centres	Centre	15	23	153%
Provision of additional drugs at POID centres	Centre	15	0	0%
Referral services to tertiary centres for complication management	Person	30	23	77%
Data and information collection from health institutions & referral centres	Visit day	20	20	100%
Age wise & gender wise impairment trend analysis	Report	3	3	100%
On the spot training for health workers on MIS/EHF scores & updates	Place	135	145	107%
Proper filling of patient cards & leprosy registers	Place	135	163	121%
EHF scores comparison & data analysis during diagnosis & after treatment completion	Report	3	3	100%
Identification of impairment cases among diagnosed leprosy cases	Day	122	132	108%
Self care training with counselling services for impairment cases	Person	88	62	70%
Referral for treatment, surgery, devices and other therapeutic services	Person	30	21	70%

Some of the accomplishments outlined in the aforementioned report were collaborative endeavours achieved through coordinated efforts with partner organizations, rather than solely relying on financial contributions from NLR Nepal. However, technical guidance and support were provided by NLR Nepal to facilitate these activities. Specifically, initiatives related to the provision of devices, counselling services, and referrals for surgical interventions were integrated with the activities of the NNSWA in the Far Western Province. The identification of impairment cases involved a combination of methodologies alongside the updating of leprosy inventories.

On-the-spot training sessions were conducted for healthcare personnel to enhance their proficiency in utilizing recording/reporting and EHF scores, as well as staying abreast of updates. In certain health centres situated in leprosy-endemic regions, healthcare workers acquired competencies in accurately diagnosing reactions and neuritis stemming from leprosy. They either manage such cases locally or refer them to specialized referral centres. Notably, some municipalities have allocated resources to support tertiary care specifically tailored for leprosy through referral mechanisms. These outcomes signify commendable progress within the program, albeit not yet adequate to address the comprehensive needs of all individuals affected by leprosy.

Despite notable achievements, certain interventions and activities failed to yield the anticipated results in 2023. While there were commendable milestones, the primary shortfall stemmed from insufficient efforts in establishing and updating POID centres at the community level. These centres hold potential as sustainable institutions capable of significantly improving the lives of individuals affected by leprosy. However, the

identification of impairment cases and subsequent provision of self-care skills demonstrated comparatively greater success during the reporting period.

4.3.3. Programme Analysis

We encountered challenges in the transformation of five identified health institutions into POID centers. Presently, the availability of impairment management services at the local level is limited, emphasizing the critical need for establishing POID centers and delivering pertinent training to healthcare professionals. Until these centers are operational and adequately equipped to handle impairment management, the primary recourse for addressing leprosy-related complications remains referrals. Despite the presence of referral options, a significant proportion of affected individuals hesitate to seek care outside their communities due to familial and professional obligations. This reluctance constitutes a setback for the project in 2023. Nevertheless, we have facilitated the referral of numerous complex cases to tertiary care centers, ensuring that these individuals receive specialized attention and treatment.

In our commitment to enhancing disability and complication management in leprosy, we have convened several meetings with networks comprising individuals affected by the disease. These discussions have been instrumental in formulating effective interventions and strategies to address challenges associated with disabilities and complications arising from leprosy.

NLR Nepal has not directly providing support running any referral clinics for the past 12 to 15 years. The absence of a comprehensive treatment referral clinic under our purview has rendered planning for impairment and disability prevention somewhat inadequate and less impactful. This indicates that, there are certainly the differences on providing directly the treatment and complication services and referring the patients to other centers for such services. Another contributing factor is the level of staff competency in managing complications, which may be compromised due to limited clinical practice. In such a scenario, it appears more prudent to invest time and resources in alternative areas while concurrently establishing connections with referral clinics, which are essential for this crucial intervention.

4.4. Zero Exclusion

4.4.1. Context Analysis

Over the past several years, significant progress has been made in addressing the social inclusion of persons affected by leprosy. One notable development has been the increasing recognition of leprosy as a disease that can be effectively managed and treated, rather than a cause for fear and exclusion. This shift in perception has been facilitated by advancements in medical science, which have led to better understanding of leprosy's causes, transmission, and treatment options in the communities.

Another positive change has been the implementation of policies and initiatives aimed at combating stigma and discrimination associated with leprosy. Nepal has enacted laws protecting the rights of individuals affected by leprosy, including measures to prevent discrimination in employment, education, and healthcare but still some improvements are

needed. Additionally, awareness campaigns and educational programs have helped dispel myths and misconceptions about the disease, fostering greater empathy and understanding in communities.

Furthermore, there has been a growing emphasis on community-based approaches to leprosy care and rehabilitation. Community support groups and peer counseling programs have emerged as important resources for individuals affected by leprosy, providing them with emotional support and practical assistance to navigate the challenges they face. These grassroots initiatives not only promote social inclusion but also empower affected individuals to advocate for their rights and participate more fully in society.

However, despite these positive developments, challenges remain in achieving full social inclusion for individuals affected by leprosy. Stigma and discrimination, but in a different or indirect form, continue to persist in societies but in a smaller scale, fueled by deep-seated cultural beliefs and social attitudes. Moreover, disparities in access to healthcare and support services persist, particularly in marginalized communities and underserved regions.

Looking ahead, it will be essential to build on the progress made in recent years and redouble efforts to address the remaining barriers to social inclusion for individuals affected by leprosy. This will require sustained investment in education, advocacy, and healthcare infrastructure, as well as continued collaboration between governments, civil society organizations, and affected communities. By working together to challenge stigma, promote human rights, and ensure access to quality care, we can create a more inclusive and compassionate society for all individuals affected by leprosy.

During the reporting period, one of the principal accomplishments of this project pertains to the extensive coverage in the media regarding exclusionary practices in the Municipalities of the Far Western province. Secondary achievements encompass a series of activities, namely, raising awareness on human rights issues within community groups, forging partnerships with said groups, documenting instances of inclusion and exclusion practices, conducting media campaigns to mobilize against discrimination, and garnering media attention for these pertinent issues.

4.4.2. Project Analysis

Table 4: Projects under Zero Exclusion

Projects under Zero Exclusion							
Project code	Name Project	Start date	End date	Implemented by	Funded by	Implementation status	Comments
NP017	<i>Leprosy and social inclusion</i>	2023	2023	Choose an item.	NLR IO	On track	

Project 1. *Leprosy and social inclusion*

In response to uncertainties and societal conflicts, adjustments have been made to our planned activities for the current year. Societal conflicts in this sense that process of exclusions are legally not allowed but they are still being reported in some places. Moreover, people behave differently with persons affected but that is difficult to consider illegal issues

because that is without any evidence. These conditions create uncertainties, such as what steps and strategy to apply, for leprosy and social inclusions. Specifically, three initiatives have been modified: the legal treatment of exclusionary practices, documentation of inclusion/exclusion practices, and assistance and support for senior citizens affected by leprosy. Efforts have been made to align the latter with existing governmental provisions, while the former two may require indirect advocacy and collaboration with community groups and community-based organizations (CBOs).

In 2023, noteworthy progress was achieved through initiatives led by the National Nepal Social Welfare Association (NNSWA), partner of NLR, in the Far Western Province. The media campaign and mobilization efforts addressing leprosy and discrimination issues, along with the establishment of networks with universities and research centers, have yielded significant results. Notably, Sudurpaschim University has embarked on interactive sessions involving professors, lecturers, and students, who are actively engaged in thesis preparation focusing on the social ramifications of leprosy. NLR must prioritize continued support in the coming years to ensure the success of these initiatives. Additional achievements from the project in 2023 include:

Leprosy and social inclusion	Unit	Target	Achievement	Achievement %
Sensitization on human rights to community groups	Group	20	21	105%
Establishing partnership with community groups	Group	23	27	117%
Lobbying meetings with Municipality authorities	Place	23	23	100%
Media highlights of exclusion practices	Time	4	2	50%
Legal treatment of exclusion practices	Person	20	0	0%
Documentations of inclusion/exclusion practices	Person	20	0	0%
Case studies and publications	Number	40	27	68%
Sensitization on rights and services to persons affected	Number	70	54	77%
Establish / strengthen networks of persons affected	Group	2	3	150%
Sensitization on existing policy provisions	Place	23	27	117%
Lobbying / meetings & need based support to local rehabilitation centres	Centre	4	5	125%
Assistance & support to leprosy affected young girls	Person	20	25	125%
Educational support to leprosy affected school enrolled children	Person	20	30	150%
Assistance & support to leprosy affected senior citizens	Person	10	0	0%
Rights and representation for girls and young women in community groups	Person	20	1	5%
Establish network with universities and research centers	Institutions	4	1	25%
Annual seminar/workshop of leprosy affected persons	Time	2	2	100%
Prepare local leaders and they can fulfil the role of effective advocacy	Person	4	4	100%
Media campaign & mobilization on leprosy & discrimination issues	Time	1	3	300%

In the fiscal year of 2023, significant strides were made in achieving predetermined objectives pertaining to leprosy and social inclusion. Collaborative partnerships were forged with numerous community entities, totaling 27, to bolster awareness surrounding leprosy.

Moreover, educational sessions on human rights were conducted for 21 community groups, enhancing their understanding and advocacy in this crucial area.

A pivotal achievement in 2023 was the establishment of organizations representing persons affected by leprosy in NLR-supported provinces, namely Sudurpaschim and Koshi. This accomplishment marked a significant milestone that had been targeted for several years.

The interventions implemented throughout 2023 proved highly effective in reshaping community attitudes towards leprosy. Noticeable shifts in perception were observed among local authorities, community-based organizations (CBOs), youth groups, and residents alike. This was due to intensive practices of media highlights, sensitization and awareness rising interventions. This success can be attributed to meticulous planning tailored to the specific needs of each community, ensuring the relevance and impact of the interventions.

4.4.3. Programme Analysis

In Koshi and Far Western provinces, we have taken the initiative to sensitize the public about human rights issues of leprosy, particularly those concerning stigma and discrimination. Identifying and verifying such issues is a gradual process, as they may not always be immediately apparent, necessitating time and careful examination for appropriate intervention.

To raise awareness, we have successfully highlighted several instances of these issues through television broadcasts and local newspaper publications. Additionally, we have actively worked with different individuals affected by leprosy, providing them with sensitization services concerning their rights, along with creating an enabling environment to ensure adherence to existing policy provisions.

Throughout our efforts, we have encountered numerous cases where social barriers hinder the implementation of existing policy provisions, especially regarding matters such as school enrolment and scholarships. As part of our interventions, we identified school-age children facing such barriers and extended support to ensure their continued access to education.

Leprosy-affected individuals have expressed their willingness to expand their networks primarily in the provinces of Koshi and Far Western, with plans to extend their reach to other provinces in the future. They are actively establishing contact offices and implementing relevant management structures to effectively engage with Municipality groups and other stakeholders. This network aims to spearhead efforts in combating stigma, discrimination, and human rights issues pertaining to leprosy.

Simultaneously, efforts have been initiated to garner media attention and advance the legal treatment process, with further developments anticipated throughout the remainder of this year. Once the functional networks of affected individuals are fully established, we will focus on identifying 'Role Models' among political cadres and community leaders, fostering their involvement in this cause.

In conjunction with other leprosy control interventions, we have commenced exploratory studies and intend to collaborate with academic institutions and intellectual groups through lobbying efforts. This will enable us to leverage additional resources and knowledge in our pursuit of addressing leprosy-related challenges effectively.

4.5. Cross-cutting themes

4.5.1. Stigma

The complexity of addressing the stigma surrounding leprosy presents significant challenges in quantification and assessment of its duration and severity for affected individuals. Moreover, navigating interactions with affected persons can be intricate or dealing with persons affected can be complicated or tricky. Within the framework of routine leprosy control programs, initiatives such as Single Dose Rifampicin Post-Exposure Prophylaxis (SDR PEP) interventions commence with discussions regarding disclosure preferences of those impacted. Should individuals consent to disclosure, interventions are initiated accordingly. In cases where disclosure is not preferred, the focus shifts towards infection management rather than the affected individuals themselves. Meaning of this is, it is not necessary to reference person/s affected in that community, but field workers define that area as leprosy affected and year wise cases are continually being detected. They do not indicate individual people.

In instances where heightened levels of stigma are identified within specific locales, prioritized awareness campaigns precede subsequent steps of the leprosy control program. Ongoing leprosy perception assessments, conducted either through initiatives like the SDR PEP or PEP++, are instrumental. Analysis of gathered data, reports, and published literature furnishes actionable insights for effectively addressing leprosy stigma within communities.

Projects aimed at disability prevention and inclusion are intrinsically linked to combating stigma. Through the cumulative efforts of these initiatives, significant strides have been made in mitigating the impact of stigma, resulting in a notable reduction in its prevalence by the year 2023.

4.5.2. Gender

The prevalence of stigma surrounding leprosy is notably higher among females, individuals from lower socioeconomic backgrounds, particularly those from scheduled castes (dalits), and those with impairments. Recognizing this, NLR Nepal has integrated gender-specific considerations into every aspect of its program. Our overarching objective across all project types is the early detection of leprosy. This entails screening for potential cases followed by comprehensive diagnostic assessments, typically involving a full-body examination.

We prioritize addressing gender-specific needs throughout the screening process, ensuring that women are screened by female health workers and/or volunteers. While NLR does not have a specific gender-focused program, we recognize the heightened sensitivity of gender issues within the context of leprosy. Consequently, gender considerations are meticulously integrated into all phases of program planning, implementation, data collection, and analysis.

The tables provided in this report underscore the significance of gender-related factors within the leprosy program. It's noteworthy that approximately 50% of leprosy cases are borne by females, emphasizing the critical importance of addressing gender concerns within the framework of leprosy management. From year 2023 and onward we have planned some specific issues for women empowerment that clarifies our effort on this regard.

4.6. PMEL

Throughout this reporting period, considerable progress was made in the areas of Project Monitoring, Evaluation, and Learning (PMEL), along with a dedicated focus on ensuring the quality assurance of ongoing project interventions. Substantial efforts were devoted to conducting visit interventions, totaling more than 300 days, across various projects. These interventions were designed to provide valuable job training opportunities and to ensure the effective execution of project interventions.

To enhance data collection processes and promote efficiency, a novel system for routine data gathering was developed, utilizing mobile applications for individual staff members. Additionally, review meetings played a pivotal role in closely monitoring program achievements and performances, leading to the successful completion of 37 workshops only for leprosy control.

While some projects and locations continue to employ non-electronic media for data collection purposes, such as recording/reporting form formats, we are actively working towards their replacement with more streamlined electronic methods in the near future.

To facilitate effective decision-making, project and partner organizations collected monthly data, which is then subjected to periodic analysis every three months by data managers and senior staff, ultimately culminating in comprehensive reports.

The regular review and feedback system have proven to be an invaluable platform for continuous learning and improvement, enabling us to draw essential insights from ongoing project systems and refine our strategies accordingly.

5. Organization

This section of the Annual Report 2023 describes the organizational development in 2023.

5.1. Fundraising

Main Topics

Topic	2023 Targets	Results
Enhanced approach on scaling up SDR PEP as leprosy preventive measure	Euro 55,017.43	0

During this reporting period of 2023, NLR Nepal has developed and submitted 6 proposal/concept note calls including one internal proposal to NLR IO. Out of those, one internal proposal is accepted by NLR IO, one research proposal to LRI is rejected at the final moment but another one is under processing, 2 proposals are rejected, status of one proposal is still unknown. These calls were from LRI (2 call); AFAS foundation (1 Call); global grants program (1 Call), IFS foundation (1 call), NLR IO incidental funding (1 call) LRI for NTDs barriers (1 Call, this year and LOI is submitted) and LRI for Blanket Contact Approach (1 Call and this is rejected). We are further in process of proposal development together with leprosy affected persons organizations in Nepal for advocacy work in leprosy. More efforts are being made to explore open calls. Focus is also given on building partnership both nationally and internationally and submit joint proposals. NLR Nepal is reaching out to various organizations and individuals working in the sectors of Leprosy, Disabilities and other NTDs, to establish a consortium of partners. This includes active networking through informal social meets and/or arranging formal meetings/seminars. We are also reaching out to entities working in the fields of social entrepreneurship, molecular research, agriculture and technology, women empowerment and WASH by linking the benefit for persons affected by leprosy and persons with disability. This is being done to explore common interest and innovative ideas to increase funding.

Topic	2023 Targets	Jan-Jun Progress
Ending the neglect of leprosy within NTD network in Nepal	Euro 49,798	Euro 49,798 (Approved)
Towards Ending Leprosy (TELEP) in Province 7 of Nepal	Euro 278,289	
Measuring and Addressing Equity through Data Use	Euro 143,099	
Towards Ending Leprosy Problem (TELEP) in Province 1 of Nepal	Euro 341,785.9	
GIS-based blanket campaigns as a leprosy prevention and active case-finding tool for the interruption of transmission in Nepal, India, and Bangladesh	Euro 212,210	
Investigating Barriers to Healthcare Access, Affordability, and Resource Distribution for Neglected Tropical Diseases, with an Emphasis on Leprosy in Nepal		LOI submitted, budget Euro 166,000.00

5.2. Branding and Communication

In the present reporting period, several materials have been developed with a specific focus on supporting the PEP++ clinical trial, as per the directives of the CEBC (Community Education and Behavioural Change) conducted a year before.

As part of our routine procedures, we planned a target of consistently generate various training materials pertaining to leprosy, and regularly update them to align with emerging issues in the field but that did not happen in 2023 mainly due to the constraints of a limited budget allocated to this area.

5.3. Quality Assurance

Quality assurance is an ongoing process vital for the effective functioning of programs, and this practice remained consistent throughout the year 2023. Direct measures employed to uphold program quality included regular monitoring activities and on-site visits to assess the implementation and performance of interventions. These direct methods allowed for real-time observation and evaluation of program activities, enabling prompt identification of any issues or areas needing improvement.

In addition to direct measures, indirect methods such as reviews and monitoring were conducted at various levels within the organizational structure. These assessments provided a comprehensive overview of program performance, allowing for a more in-depth analysis of processes, outcomes, and impact. By utilizing both direct and indirect methods, the program could gather diverse perspectives and insights, leading to a more thorough understanding of its strengths and areas for enhancement.

Furthermore, at the organizational level, annual financial audits were undertaken to ensure accountability and transparency in financial management. These audits not only assessed the financial integrity of the organization but also provided assurance regarding the allocation and utilization of resources for program activities. By conducting financial audits on a yearly basis, the organization could uphold standards of fiscal responsibility, thereby safeguarding both the program's integrity and its financial sustainability.

Overall, the combination of direct and indirect quality assurance measures, along with annual financial audits, contributed to the continuous improvement and effectiveness of the program in meeting its objectives and delivering impactful outcomes.

5.4. TCBA! project

During this reporting period, the TCBA project experienced a reduction in functionality. Regrettably, only two staff members and Boundary partners' (BPs) received training on Leprosy. We faced challenges in organizing essential training sessions for staff and BPs, including diagnosis, treatment, and complication management. Moreover, we were unable to arrange need-based training, such as research and innovations, institutional fundraising, and proposal development for the NLR Nepal staff.

In the first half of the year, we could not achieve many targets. In the second half of the year, we realized that there was an internal issue wherein the staff recruited as the focal person to attend the meeting did not convey the information accurately. We subsequently adjusted our strategy, resulting in more significant achievements.

Despite these challenges, we managed to participate in two significant international-level workshops during this period. These workshops provided valuable opportunities for networking and knowledge exchange. Moving forward, we remain committed to addressing the shortcomings and working towards enhancing the project's efficacy in collaboration with the international office and leveraging available resources more effectively.

5.5. Other Capacity Strengthening Initiatives

In relation to the other capacity building interventions, a considerable amount of progress has been made. We were able to do some of the need based capacity enhancement intervention to our staff, the main highlights for this are, orientations on Blanket Contact Approach (BCA), basic and advance level training on mapping and clustering, basic level concepts on research designing and so on.

5.6. Security and Risk Management

During the reporting period, safety and security concerns, excluding natural disasters and hazards, did not pose a significant threat to NLR. There were no instances of political unrest, major political demonstrations, or conflicts that hindered the smooth execution of our projects during this timeframe.

It is noteworthy that the government has officially declared the resolution of COVID-related issues in the country and subsequently lifted all related restrictions. However, it is important to be aware that the Dengue problem persists primarily during the summer season and in certain urban centres. As of now, there have been no additional restrictions imposed on our programs in response to this issue.

5.7. Process of transition to a national NGO

Since the commencement of the year 2021, NLR Nepal, a local non-governmental organization (NGO), has assumed comprehensive responsibilities for program execution and financial transactions, following the handover from the International Non-Governmental Organization (INGO). Concurrently, the pending final evaluation of previous NLR-supported projects in Nepal, under the INGO, has been successfully conducted, along with the phasing out process of the INGO.

In recent years, there has been a gradual increase in Board involvement, accompanied by a growing understanding of the projects, leading to the provision of some guidance and advice. Periodic organization of Board meetings ensures a structured approach to decision-making, while occasional visits by board members to project areas enable them to monitor project performances effectively.

5.8. Participation to international conferences and international travels

We mainly participated four events in 2023: 1. Round table meeting/s; 2. Zero transmission workshop; 3. LRI spring meeting and 4. Data analysis training. All these international meetings were helpful to upgrade country specific program in Nepal.

5.9. Cooperation/ support

Several visits by Duane and Dr. Wim, focusing on the PEP++ projects, and by Dr. Wim and Anneke for the GLM project initiation, proved to be highly beneficial and constructive. Notably, during the GLM project visit, two workshops were organized at both the Federal and Provincial levels, fostering a collaborative environment aimed at enhancing the implementation of a case-based surveillance system for Leprosy.

Significantly, a productive collaboration was established with FAIRMED starting in 2023, primarily centered around an impact assessment research project and initiatives targeting Neglected Tropical Diseases (NTDs). Together, we have collaborated on the submission of a research project proposal to Leprosy Research Initiative (LRI) focusing on NTDs for the upcoming years.

6. Financial Report

The approved budget for 2022 of NLR Nepal is NPR 99,543,206 and expenses are NPR 93,984,979 (94%) for the period of January to December 2023; details are furnished below:

S.N.	Project Name & Number	Budget 2023	Expenditure	Exp. In %
1	Leprosy Program_ Zero Transmission (NP001)	24,138,194	24,005,940	99%
2	Prevention of Impairments and Disabilities_Zero Disability (NP016)	9,702,771	8,902,364	92%
3	Leprosy and Social Inclusion_Zero Exclusion (NP017)	11,888,071	8,810,536	74%
4	LRI Research Project (NP014)	9,616,500	10,307,083	107%
5	What Matters Most (NP015)	1,429,733	952,475	67%
6	PEP++ Research Project (NP012)	37,879,130	37,638,600	99%
7	Capacity Development in Action_TCBiA (NP701)	1,016,000	992,931	98%
8	Ending the neglect of Leprosy within NTD Network in Nepal (NP018)	3,872,808	2,375,051	61%

Grand Total Amount	99,543,206	93,984,979	94%
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7. Main reflections about the MAS/MAP 2020-2023

Analysis of Leprosy Prevention and Control Efforts

The incidence of leprosy cases exhibited a slight increase in 2023; however, a comprehensive analysis reveals a significant downward trend compared to previous years, as depicted in Figure 1. This trend underscores the efficacy of leprosy preventive measures, particularly Single Dose Rifampicin Post-Exposure Prophylaxis (SDR PEP), coupled with proactive early case detection strategies.

Figure 2 illustrates that there have been no substantial alterations in the prevalence of disability or the proportion of cases among children. Further investigation is warranted to elucidate the underlying factors contributing to these consistent patterns.

In conclusion, the observed reduction in leprosy cases in recent years underscores the effectiveness of preventive interventions such as SDR PEP and early case detection initiatives. However, ongoing analysis and exploration are essential to discern any nuances in disability rates and paediatric involvement, thereby informing targeted interventions to sustain and enhance leprosy control efforts. There are no any significant changes compared to MAS strategies of the last four year in such results of leprosy.

For leprosy prevention which is the major part of NLR Nepal since the last 8 years and the four years achievement is as follows (refer to the table 5 below):

- From 2020 to 2023, there is a notable increase in the total number of index cases covered, with a peak in 2023 at 3,749 cases.
- Both male and female index cases exhibit a similar increasing trend over the years, with a higher proportion of males being covered compared to females in each year.
- The number of districts covered fluctuates over the years, with a slight decrease in 2023 compared to 2022.
- Similarly, the number of municipalities covered shows variations, with a decrease from 2022 to 2023.
- The total number of contacts listed increases steadily from 2020 to 2023, indicating improved outreach and contact tracing efforts.
- However, there seems to be a discrepancy between the number of contacts listed and enrolled, with a significant gap in 2023, suggesting potential challenges in enrolment procedures.
- The number of contacts receiving SDR administration demonstrates an increasing trend over the years, reaching the highest count in 2023.
- This indicates a proactive approach in providing preventive treatment to individuals in contact with leprosy cases.
- The total number of leprosy cases detected fluctuates over the years, with a noticeable increase in 2023.
- Different categories of leprosy cases (Household, Neighbour, Social, Community, MB, PB) show varying trends, with multibacillary (MB) cases being the most prevalent.

Overall, the data suggests an overall positive trend in terms of coverage, contact tracing, and preventive measures such as SDR administration. However, the increase in detected leprosy

cases in 2023 warrants further investigation into potential factors contributing to this rise, ensuring ongoing efforts in leprosy prevention and control remain effective.

Item	Unit	Sub Unit	Total	2015	2016	2017	2018	2019	2020	2021	2022	2023
Numbers of index cases Covered	Gender	Male	7898	299	296	318	407	592	319	2029	1474	2164
		Female	5963	217	230	262	305	397	227	1477	1263	1585
		Total Gender	13861	516	526	580	712	989	546	3506	2737	3749
Numbers of the districts covered	Number	Number	84	2	2	5	8	18	9	12	16	12
Numbers of the Municipalities covered	Number	Number	571	29	32	56	61	112	34	87	81	79
Numbers of the clusters covered	Number	Number	168	0	0	0	0	0	0	0	11	157
Numbers of the contacts listed		Close contact	313813	11828	12322	13757	17205	17763	11001	71285	76803	81849
		Community	37192	0	0	0	0	0	0	0	4287	32905
		Total	351005	11828	12322	13757	17205	17763	11001	71285	81090	114754
Numbers of the contacts enrolled	Number	Number	329709	11818	12274	13312	15992	15902	9554	65763	72997	112097
Numbers of contacts with SDR administration	Numbers	Number	281742	11503	11703	12157	13888	14215	8791	60151	62649	86685
Numbers of Leprosy Detected	Numbers	Household	130	15	15	12	16	4	4	5	29	30
		Neighbour	261	45	34	29	29	7	2	18	43	54
		Social	7	0	3	0	2	0	0	1	1	0
		Community	15	0	0	0	0	0	0	0	3	12
		MB	198	20	23	18	25	24	4	14	28	42
		PB	304	46	47	37	37	8	8	20	48	53
Total	Total		502	66	70	55	62	32	12	34	76	95

Over the course of this four-year period, discernible shifts have been observed in the engagement and involvement of community groups in leprosy initiatives. There has been a concerted effort to enhance and refine the leprosy program through the integration of modern technologies, including Information Technology (IT), mobile applications, and online-based analysis utilizing mapping, clustering, and GPX viewer technologies.

In summary, all planned projects have generally achieved their intended outcomes, albeit without any significant drastic alterations noted. This underscores the effectiveness of the implemented strategies and the importance of continued innovation and adaptation to further enhance the efficacy of leprosy control and prevention efforts.

Learning and recommendations:

- More comprehensive technical discussions are required to finalize the appropriate Post-Exposure Prophylaxis (PEP) modality. Key considerations include the types and coverage of contacts, PEP regimen, duration, and follow-up protocols.
- Inadequate recording and reporting practices in leprosy management pose significant challenges, particularly the issue of over-reporting in the aggregated Health Management Information System (HMIS). Implementing a case-based online reporting system is imperative for improved accuracy and efficiency. One of the piloting has been initiated under the name, “Global leprosy mapping (GLM)” project in Madhesh province and one separate project has been designed to support Government for online cases based reporting including mapping and identification of leprosy hotspots via mapping/clustering.

- **Simplified approaches** to PEP, leprosy treatment, and management, as well as recording and reporting procedures, are necessary due to discrepancies in guideline adherence at the peripheral level.
- Several major **research endeavours have served as significant milestones in leprosy management** during this period, contributing to notable successes.
- **Challenges persist in fundraising for regular technical projects**, with targeted outcomes not being consistently achieved. However, research projects funded by the Leprosy Research Initiative (LRI) have demonstrated exceptional performance.
- Continuous improvement in **organizational management** is essential, as a well-structured organization tends to exhibit enhanced performance outcomes.

8. Conclusions and way forward

The overarching theme in the efforts to combat leprosy and promote social inclusion is one of progress tempered by persistent challenges. The shift in perception regarding leprosy from fear and exclusion to understanding and inclusion marks a significant achievement, driven by advancements in medical science and concerted awareness campaigns. Initiatives aimed at combating stigma and discrimination, coupled with community-based approaches to care and rehabilitation, have played pivotal roles in fostering greater empathy and support for individuals affected by leprosy. However, despite these strides, stigma and discrimination persist, albeit in smaller scales, fuelled by deep-rooted cultural beliefs and disparities in access to healthcare. Moreover, challenges in fundraising, ensuring accurate recording and reporting practices, and finalizing preventive treatment modalities remain, underscoring the need for sustained investment, innovation, and collaboration in the fight against leprosy.

The financial report reflects a commendable utilization of resources towards leprosy prevention and social inclusion projects, demonstrating a commitment to achieving targeted outcomes. While some projects have surpassed their goals, others have faced setbacks, highlighting the importance of ongoing monitoring, evaluation, and adaptive management. The MAS/MAP 2020-2023 period has witnessed significant achievements in terms of reduced leprosy cases, improved coverage, and the integration of modern technologies. However, challenges persist, necessitating continued efforts in refining strategies, enhancing organizational management, and addressing key recommendations for sustained progress. Ultimately, the findings underscore the importance of holistic approaches, community engagement, and ongoing innovation in advancing the cause of leprosy eradication and fostering inclusive societies.