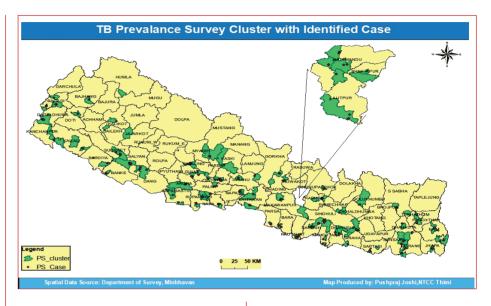
# **NATIONAL TB PREVALENCE SURVEY (2018-19) - FACTSHEET**

# **SUMMARY**

The National TB prevalence survey 2018-19 was the first ever nationally representative TB survey to understand the actual TB disease burden in the general population in Nepal. The survey also measured the health-care seeking behaviour and service utilization among survey participants. The survey estimated the prevalence of TB in Nepal based on the direct survey findings of bacteriologically confirmed pulmonary tuberculosis among ≥ 15 years population in Nepal.

Field data collection was carried out in 99 cluster sites. 92% of eligible population participated in the survey. Individual interview to screen symptom and Chest X-ray by direct digital image were offered to every participant and 96.8% of participants received Chest X-ray. Of the 28% who were eligible for sputum, 98.6% submitted at least one sample. Xpert MTB/RIF was used as the primary diagnostic tool for all sputum eligible participants and culture was done for 50% of the participants eligible for sputum and among those with a history of TB. 99%

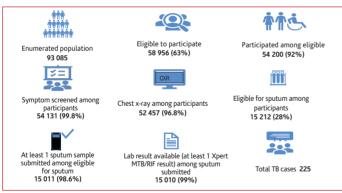


of those who submitted sputum had at least one valid result of Xpert MTB/RIF. 225 cases were directly identified as PS case.

According to the survey, currently over 117 000 people are living with TB disease in Nepal. Likewise, 69 000 people developed TB in 2018-19. TB burden (incidence) is much more higher (1.6 times) than previously

estimated. TB prevalence is much higher among elderly and in men. TB prevalence was also found more in hills and terai as compared mountain and KTM valley, but prevalence/notification ratio (P/N ratio) highest in hill and mountain. These findings provide better burden estimates for Nepal which will be used for designing appropriate interventions towards ending TB in Nepal.

#### FIGURE 1: CONSORT DIAGRAM (FLOW CHART)



72.9%

0.0%

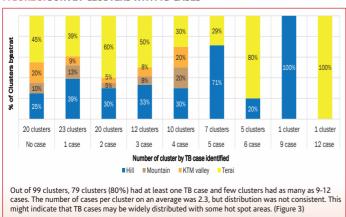
- Cough < 2 weeks with additional symptom only</p>
- Cough ≥ 2 weeks only
- X-ray exempted

FIGURE 2: SYMPTOM SCREENING AND CXR FINDINGS OF TB CASES (N=225)

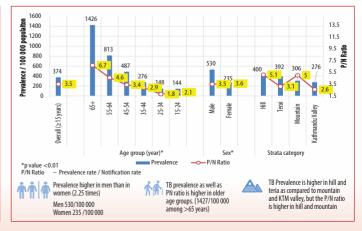
- Cough < 2 weeks with additional symptom and X-ray suggestive
- Cough ≥ 2 weeks and X-ray suggestive
- X-ray suggestive only

Of the TB cases, more than 72% showed abnormal chest X-ray without any symptoms. This highlights the importance of the use of digital X-rays as a screening tool and not to rely on symptom screening alone to increase TB case detection.

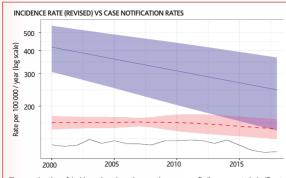
### FIGURE 3: SURVEY CLUSTERS WITH TB CASES



## FIGURE 4: TB PREVALENCE IN STRATA AND DEMOGRAPHIC CHARACTERISTICS



#### FIGURE 5: TB BURDEN ESTIMATES



The re-estimation of incidence based on the prevalence survey findings suggested significant impact of efforts on TB epidemiology in Nepal, which had led to an estimated annual reduction of TB incidence by 3% in the last decade. This decline is better than the global annual decline rate of 1.5%–2%. However, this decline needs to be further accelerated to meet End TB targets. (Figure 5)

SURVEY

# **IIII** KEY STATISTICS



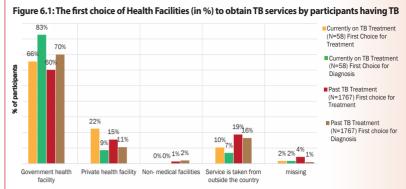
In 2018 only 32043 cases were notified, indicating **54%** Cases are missing

#### Around 69 000 people develop new TB cases annually Annual TB incidence 245

Per 100 000 population TB incidence is 1.6 time higher than previously estimated

Annual reduction of TR incidence rate is 3%

#### FIGURE 6: HEALTH-CARE SEEKING BEHAVIOUR AND SERVICE UTILIZATION



For more than 60% of participants with history of TB, government health facilities were the first choice for TB services, followed by the private sector, and health services outside the country. Among those who were taking treatment services outside the country, most were male, most were working and older age group and from terai region (62%). (Figure 6.1)

Figure 6.2: First Choice (in %) of seeking Health Care among Cough =>2 Weeks (N=1934)



31% sought medical treatment in government health facilities and 14% in private health facilities as the first priority, 39% did not sea any care. The proportion of not seeking care was higher in women, working-age group, mountains, and among the poor. This is of great concern and access to care in such areas among vulnerable groups need to be improved. (Figure 62) More than 80% (with TB treatment history) responded that treatment was taken either under the supervision of health workers at the health facilities or taken at home under supervision with facilities or taken at home under supervision with frequent visits to the health facilities.

### **KEY FINDINGS OF THE SURVEY**



Current practice of TB symptom screening can miss cases: Screening for TB using cough of more than two weeks would have captured only 20.8 % of the TB cases. Screening for TB using any TB related symptom - cough of any duration, fever, weight loss, night sweats, fatigue, shortness of breath or chest pain detects additional 5.8% TB cases.



Chest x-ray found to be a better screening tool for TB: More than 70% of the confirmed TB cases did not have cough  $\geq$  2 weeks or other symptoms as used for screening of TB during the survey. These cases were only identified because of using chest x-ray as screening tool.



Use of microscopy for diagnosis misses cases: As a solo test, the commonly used microscopy test would have missed significant number of cases.



GeneXpert (molecular technology for the diagnosis of TB) detected more TB cases as compared to smear microscopy, making it more reliable and efficient test.



**DOTS**, essential for sustaining high TB treatment success rate: Survey finding shows more than 80% of participants had been adhering to treatment as a result of direct supervision. Hence, DOTS need to be scaled up community level to sustain the current excellent (91%) treatment success rate.



High trust on Goyt, health facilities: Patients had high trust in the government health facilities; it provides opportunity to strengthen quality of care in the government health facilities complemented by private sector.



TB and migration: Significant number of people seek TB services across the country.

#### **CALL FOR ACTION TOWARDS ENDING TB IN NEPAL**

#### 1. Ensure high-level political commitment to END TB.

- TB burden is much higher than previously estimated. It is essential to mobilize other sectors beyond health such as industries, education, finance, private sectors, communities, etc. for coordinated and joint efforts to End TB.
- Sustain the TB and MDR-TB response through high-level political commitment, strong leadership across multiple government sectors, partnerships and adequate investments in TB, including cross border collaboration.

# 2. Improve access to quality TB service.

- Ensure better access to more sensitive screening and diagnostic tools such as (chest X-ray and Xpert MTB/RIF. LPA, LAMP etc) to ensure early detection
- Ensure quality and patient friendly treatment services both at health facilities and in communities (e.g. Community Based DOT, family-based DOT etc).

# 3. Engage private sector in provision of high-quality TB services

- Improve roles of the private sector and hospitals in TB control to deliver high quality TB care and services.
- Implement mandatory case notification

#### 4. Increase awareness and create demand for quality TB services

- Empower communities with proper knowledge of TB and generate demand for quality TB services.
- Address TB problem among migrants by conducting appropriate screening and care where necessary
- Provide patients and their families with appropriate supports including social support and contact tracing.

#### 5. Ensure increased investment in TB, both financial and human resources, to meet the Global commitment to #ENDTB#

- Commit to increase domestic investment for TB.
- Advocate for increased donor investment for TB.
- Ensure adequate human resources at all levels for high quality TB service
- Ensure NO out of pocket expenditure by TB affected families.