



ສູນຄວບຄຸມວັນນະໂລກ

National TB Control Center (NTC)



Health Priority Programs

TB Meeting,

Monday, June 20 2022

14h00 to 17h00 - Vientiane time,

9h00 to 12h00 - Geneva time

Health and Nutrition Services and Access Project

Joint Implementation Support Mission

20 June, 2022

Content of NTC presentation

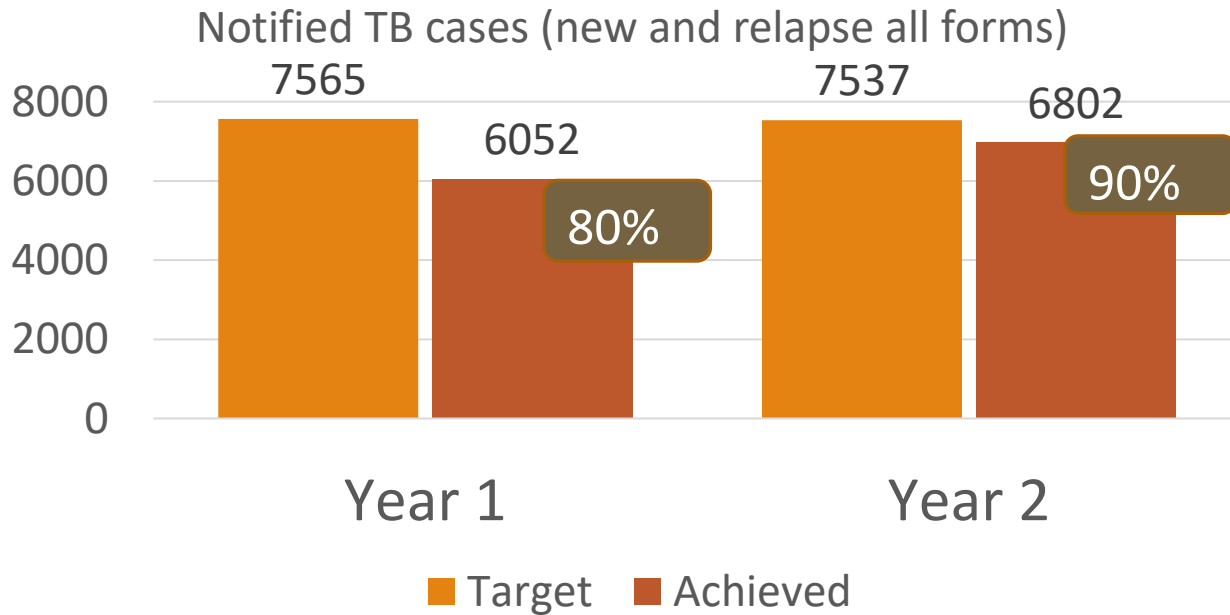
- 1 National TB Control Program update year 2
- 2 Analysis of best practices, challenges and action plan to achieve year 3 targets
3. Enhancing collaboration with other partners/donors/implementers

1. National TB Control Program update year 2

- 1.1 TB case notification: active case finding, contact tracing, case finding in children, community engagement
- 1.2 TB treatment: treatment provision, adherence rates and barriers to treatment
- 1.3 Addressing catastrophic costs for TB patients
- 1.4 GeneXpert and x-ray machine utilization
- 1.5 TB/HIV collaboration: testing, treatment, referrals and TPT
- 1.6 Surveillance and real time monitoring with TB tracker

1.1 TB case notification: DLI-J Achievement in Y2 (Jun-21 to May-22)

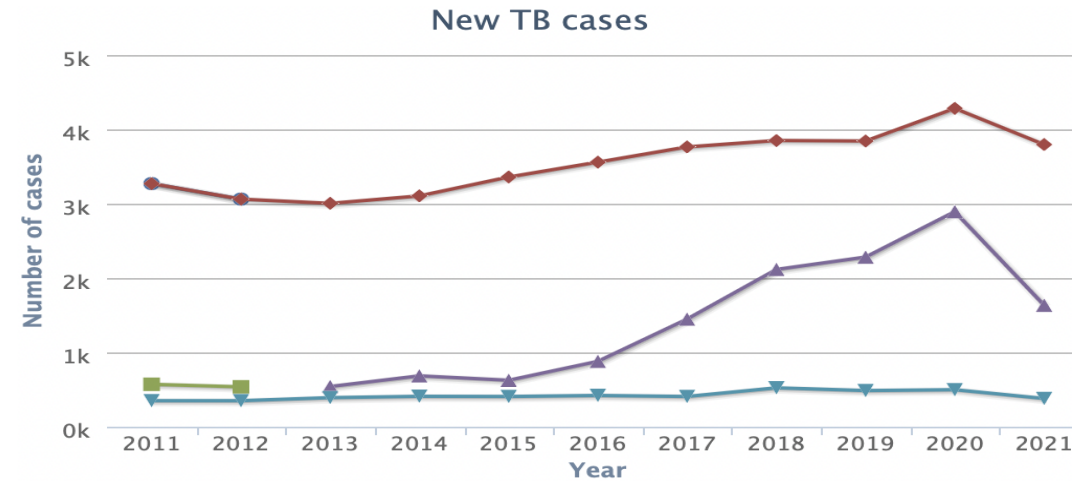
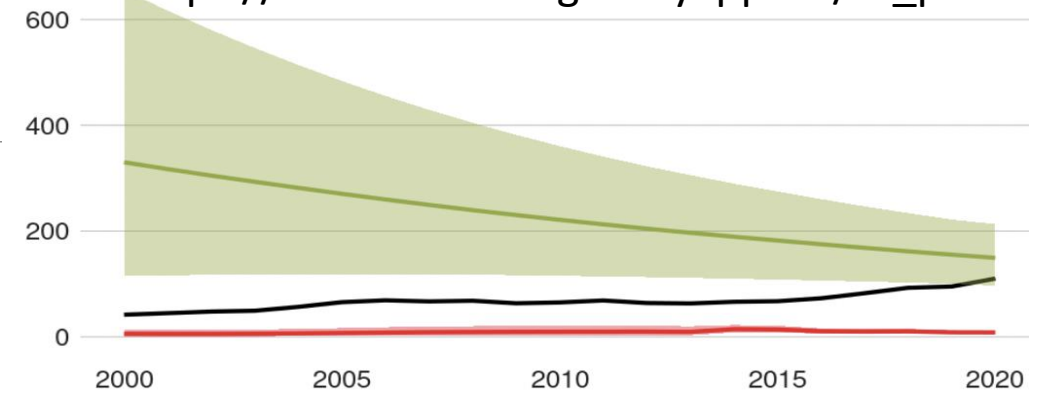
| DLI-J | Y2 (Jun 2021 to May 2022), DHIS2 | | |
|--|----------------------------------|--|-------------|
| | Target | Result | % of target |
| TB notification # (new and relapse all forms) | 7,537 TB cases | 6,802 TB cases (source TB tracker DHIS2) | 90% |
| Xpert coverage % | 100% | 100% | 100% |



Incidence, New and relapse TB cases notified, HIV-positive TB incidence

(Rate per 100 000 population per year)

https://worldhealthorg.shinyapps.io/tb_profiles



<https://extranet.who.int/tme>

1.1 TB cases notified by provinces (Jun-21 to May-22, DHIS2 TB tracker)

| TB: Registered Cases New and Relapse | Jun-21 | Jul-21 | Aug-21 | Sep-21 | Oct-21 | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Apr-22 | May-22 | Total Y2 | Target | % |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|---------------|------------|
| 01 Vientiane Capital | 92 | 104 | 137 | 93 | 62 | 55 | 51 | 81 | 106 | 103 | 100 | 126 | 1,110 | 990 | 112% |
| 02 Phongsali | 9 | 9 | 17 | 13 | 8 | 2 | 6 | 5 | 70 | 7 | 6 | 22 | 174 | 203 | 85% |
| 03 Louangnamtha | 21 | 17 | 19 | 30 | 20 | 9 | 12 | 16 | 32 | 33 | 23 | 24 | 256 | 201 | 127% |
| 04 Oudomxai | 33 | 23 | 31 | 27 | 27 | 11 | 15 | 19 | 24 | 100 | 29 | 28 | 367 | 365 | 100% |
| 05 Bokeo | 6 | 15 | 19 | 14 | 16 | 10 | 8 | 8 | 14 | 19 | 8 | 57 | 194 | 202 | 96% |
| 06 Louangphabang | 23 | 25 | 87 | 10 | 14 | 4 | 20 | 22 | 44 | 30 | 28 | 167 | 474 | 509 | 93% |
| 07 Houaphan | 12 | 50 | 4 | 5 | 3 | 2 | | 1 | 1 | 6 | 28 | 7 | 119 | 358 | 33% |
| 08 Xainyabouli | 16 | 21 | 12 | 18 | 11 | 8 | 10 | 13 | 21 | 37 | 30 | 80 | 277 | 420 | 65% |
| 09 Xiangkhouang | 1 | 3 | 5 | 3 | 5 | 3 | 3 | 3 | 22 | 1 | 65 | 5 | 119 | 224 | 53% |
| 10 Vientiane | 14 | 19 | 201 | 19 | 11 | 8 | 18 | 23 | 27 | 25 | 20 | 26 | 411 | 566 | 72% |
| 11 Bolikhamxai | 10 | 55 | 26 | 16 | 9 | 12 | 16 | 25 | 13 | 22 | 11 | 16 | 231 | 325 | 71% |
| 12 Khammouan | 50 | 105 | 32 | 17 | 29 | 54 | 43 | 51 | 29 | 40 | 28 | 31 | 509 | 457 | 111% |
| 13 Savannakhet | 63 | 69 | 74 | 77 | 41 | 106 | 76 | 51 | 66 | 67 | 75 | 187 | 952 | 1,116 | 85% |
| 14 Salavan | 34 | 76 | 96 | 28 | 21 | 30 | 29 | 34 | 35 | 39 | 19 | 30 | 471 | 447 | 105% |
| 15 Xekong | 5 | 2 | 8 | 6 | 8 | 2 | 2 | 4 | 4 | 52 | 2 | 11 | 106 | 126 | 84% |
| 16 Champasak | 63 | 72 | 77 | 41 | 53 | 55 | 134 | 58 | 63 | 63 | 88 | 108 | 875 | 810 | 108% |
| 17 Attapu | 4 | 13 | 1 | 6 | 4 | 1 | 2 | 26 | 3 | 9 | 3 | 33 | 105 | 159 | 66% |
| 18 Xaisomboun | | 2 | | 17 | 2 | 2 | | | 3 | 1 | 1 | 24 | 52 | 60 | 86% |
| Total | 456 | 680 | 846 | 440 | 344 | 374 | 445 | 440 | 577 | 654 | 564 | 982 | 6,802 | 7,537 | 90% |

1.2 TB treatment: treatment provision, adherence rates and barriers to treatment

NTC is securing provision of WHO prequalified first and second line TB drugs through GDF <https://stoptb.org/gdf/oms/default.asp> with GF and GoL co-financing:

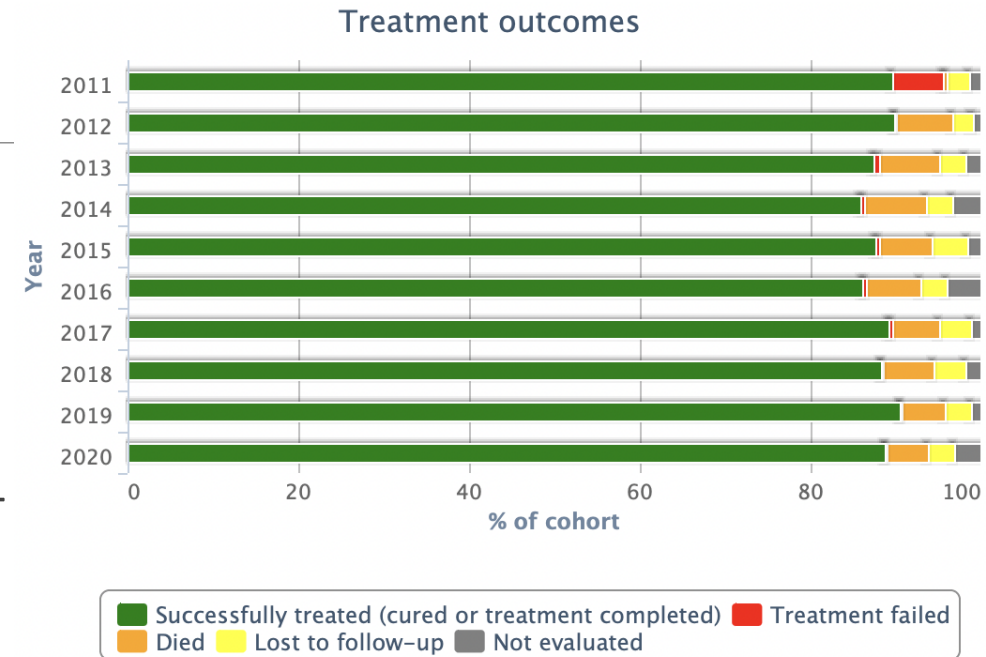
Y2 TB drugs order paid by GF arrived in country (except LAO/DP/21/11967, shipment **22210183 SO-02** on **5 September 2022**: Am-500-(A)-100; Bdq-20-(L)-60; Cfz-100-(B)-100; Pa-200-(L)-26 (Pretomanid).

Y3 TB drugs: split order (No1. GDF in-voices submitted to DPC (pending GoL prepayment); No2. to be ordered in Jan23 and paid in June 2023 (GoL co-financing)).

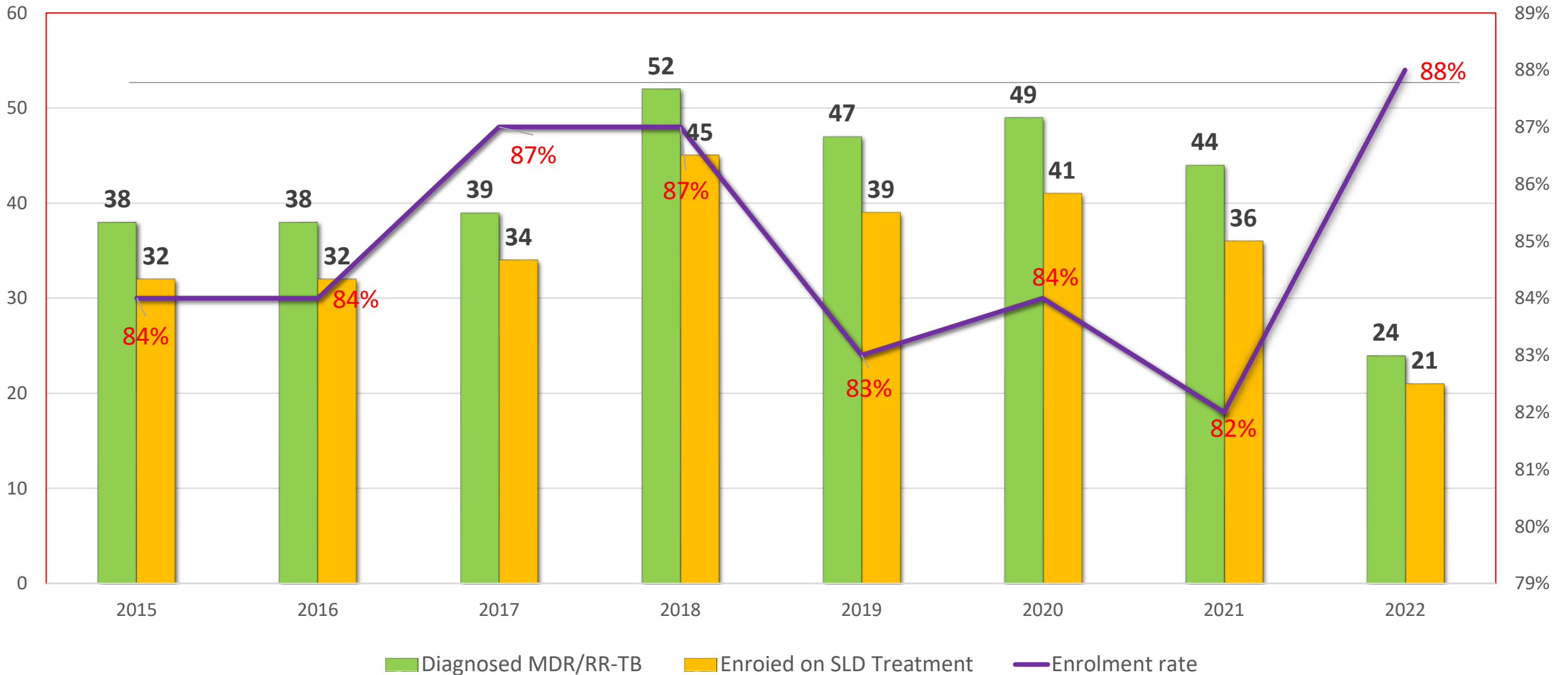
Treatment success rate was $\approx 90\%$ among DS-TB patients and 73% among DR-TB in 2021

Addressing barriers to treatment:

- to reduce diagnosis and treatment delays especially for DR-TB patients;
- to use newly recommended TB drugs and shorter regimens;
- to arrange for patient centred ambulatory treatment as much as possible



DR-TB Diagnosed and enrolled on SLD



MDR/RR-TB DIAGNOSED AND ENROLLED 2015 - 2022

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (until now) |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| MDR/RR-TB diagnosed | 38 | 38 | 39 | 52 | 47 | 49 | 44 | 24 |
| Died before treat | 1 | 3 | 1 | 3 | 3 | 3 | 3 | - |
| Other treatment | - | 2 | - | - | - | 0 | - | - |
| Refused treatment | 1 | 1 | 4 | 5 | 4 | 5 | 5 | 2 |
| Transferred out | 2 | 0 | - | - | 1 | 0 | - | 1 |
| No. MDR/RR-TB enrolled on treatment (rate) | 32 (84%) | 32 (84%) | 34 (87%) | 45 (87%) | 39 (83%) | 41 (84%) | 36 (82%) | 21 (88%) |
| Cured | 25 | 26 | 28 | 37 | 30 | 23 | 17 | |
| Complete | 2 | - | 2 | 1 | - | 6 | 1 | |
| Death | 2 | 2 | 2 | 4 | 8 | 6 | 4 | |
| Lost follow-up | 3 | 4 | 2 | 3 | 1 | 5 | 1 | |
| treatment success rate | 84% | 81% | 88% | 84% | 77% | 72% | | |

1.3 Addressing catastrophic costs for TB patients

Lao PDR Patient costs survey in 2018-19 found 63% of DS-TB patients and 81% of DR-TB patients facing catastrophic costs.

Half of the patients used savings, borrowed money or sold household assets to cope with TB.

Non-medical and indirect costs accounted for more than 80% of the total costs.

Free TB services is not enough, and expansion of social protection to TB patients is necessary.

<https://pubmed.ncbi.nlm.nih.gov/33180777/>

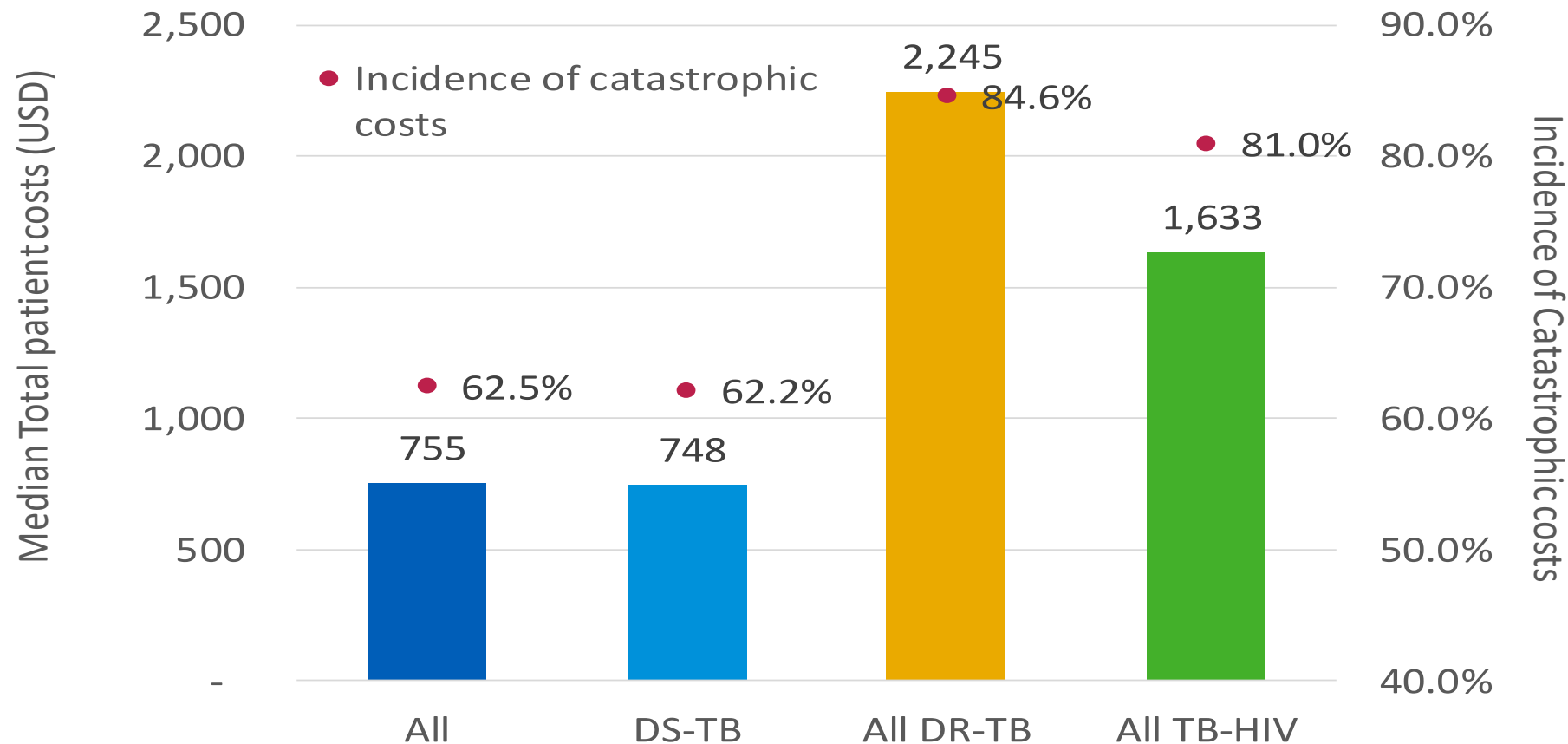
| Challenges | Interventions |
|---|---|
| Late access diagnosis and treatment with high proportion of patients with low BMI | Earlier access to quality TB diagnostic services through decentralization of Xpert testing and ACF capacity in provinces |
| Improve nutritional support for DS and DR-TB patients including systematic nutrition assessment, counselling, and therapeutic and supplementary feeding | DR-TB patients have BMI measured and benefit from patient support for transportation, daily food, initial and follow-up examinations (chest X-ray, EKG, biological tests) Nutritional survey is under preparation for DS and DR-TB patients, including systematic BMI check, nutritional counselling and ready to use therapeutic food (RUTF) for patients with low BMI (≤ 16.5) |
| Insufficient social protection for TB patients | integration of TB services under the national health insurance scheme, and discuss with NHI for including full social protection package for diagnosis and treatment of TB patients. |

1.3 Addressing catastrophic costs for TB patients (cont)

Total costs and incidence of catastrophic costs

- Median of total costs incurred by TB affected households was **6.4 million KIP (equivalent to more than 3 times** the average monthly salary of TB patients in the survey).
- **62% of DS-TB, 85% of DR-TB, and 81% of TB-HIV** coinfectd patients incurred catastrophic costs

Proportion of households facing catastrophic costs by DR and HIV Status



1.4 GeneXpert and x-ray machine utilization

➤ GeneXpert

44 GeneXpert instruments

24 laboratories equipped

6 Central level laboratories: 8 instruments

- NRL (3)
- Centre of Infectiology Lao Christophe Mérieux (CILM)
- Sethathirate Hospital
- Mithaphab Hospital
- 103 Hospital (Military hosp)
- 5 Mesa hospital (Police hosp)

17 Provincial hospital + 1 “district” hospital: 22 instruments

- Louang Prabang (2)
- Khammouane (2)
- Savanakhet (2)
- Champasack (2)+ 106 Military “district” Hospital (1)

Stand by at NRL: 12 instruments

73 Modules Broken countrywide



Xpert Maintenences



1.4 GeneXpert and x-ray machine utilization (Cont)

| GeneXpert | X-ray machines |
|--|---|
| <p>44 GeneXpert systems are available for:</p> <ul style="list-style-type: none">○ TB and diagnosis in NRL and all central and provincial hospitals with annual calibration, regular maintenance and provision of Xpert MTB/RIF Ultra tests with over 40,000 tests of presumptive TB patients per year (≈100% coverage)○ COVID-19 testing in provinces (by NCLE)○ HIV viral load in 10 ART centres and 4 POC (CHAS/NCLE)○ Potential use for HIV-1 Qual for early infant diagnosis (EID) and Hepatitis B viral load. | <p>Use of portable digital X-ray is expanded and decentralised in routine and outreach ACF</p> <p>ACF among TB contact persons, prisoners and other high risk groups, using algorithm with systematic screening by chest X-ray and Xpert testing among all identified presumptive</p> <ul style="list-style-type: none">○ 2,120 (27% of all TB cases) in 2020 and 982 (16%) in 2021 due to Covid-19 lockdowns;○ Allows earlier diagnosis and treatment of TB and TB case finding in prisons and hard to reach populations;○ saves lives and reduces transmission.○ Need to decentralise ACF by equipping and coaching more ACF provincial teams (5 additional X-ray machines requested in C19RM reprogramming) |

1.5 TB/HIV collaboration: testing, treatment, referrals and TPT

| TB | HIV |
|--|---|
| CHAS is screening for TB all PLHIV at each of their visit | HIV testing: 5,215/6,197 (84%) TB patients had and HIV test result available including 301 (5.8%) HIV positive in 2021. |
| Treatment: PLHIV receive same TB treatment | The proportion of TB/HIV patients started on ART decreased from 297/369 (80%) in 2020 to 203/301 (67%) in 2021, due to limited access to health facilities |
| Referrals: referral of non contagious TB patients to ART units for ART treatment start (based on Nal guidelines) | Referral of Bac+ TB PLHIV to TB units for severe forms needing to be hospitalized |
| | TPT among PLHIV: ART centres and POC provide 6-month isoniazid TB preventive treatment (TPT) to the newly diagnosed PLHIV who do not have active TB based on symptoms screening. The number of patients receiving TPT increased from 381 in 2018 up to 756 in 2021 (of estimated 1000 new PLHIV each year). |

1.6 TB patient tracker and report on DHIS2

| Challenges | Action taken |
|---|--|
| <ul style="list-style-type: none">▪ Data entry in TB tracker was delayed▪ Data quality improvement is needed▪ Limited use of data for decision making | <ul style="list-style-type: none">▪ Conducting weekly video meeting to follow up by coaching and exchange via WA group with implementing sites.▪ On site supervision visit provinces and districts where there is no Covid outbreak.▪ Set-up plan for retraining by tele-conference or social media discussion.▪ Using real time surveillance from DHIS2 TB Tracker and GeneXpert laboratories monthly reports. |

2. Analysis of best practices, challenges and action plan to achieve year 3 targets

| Challenges | Interventions |
|---|---|
| <ul style="list-style-type: none">➤ Improve sputum specimen transportation to Xpert testing;➤ Increase TB diagnosis capacity in district hospital and health centres➤ Catch-up with active case-finding in high prevalence districts and prisons➤ Systematize contact tracing,➤ Improve case finding in children,➤ Increase community engagement | <ul style="list-style-type: none">➤ Monitoring and increasing funding flow to districts for specimen transportation;➤ Conducting quarterly video meeting in provinces to follow-up district level catch up plans➤ Develop ACF capacity by provincial teams (procure 5 more portable X-ray machines)➤ Decentralize Xpert site to districts➤ Train/retrain physicians on diagnosis and treatment of TB in children;➤ Developing CBOs network closely linked to public health centres➤ Expansion of MDR-TB Units |

3. Enhancing collaboration with other partners/ donors/implementers

NTC to ensure regular coordination and cooperation with:

Central level:

DPC, DCDC, DHR, FDD, National Nutrition Centre, NCLE, Health Education Centre, MPSC, NTC, CHAS Ministry of labour and social welfare (NHI bureau), Department of Security, Trade Union, Lao Women Union, Youth Union;

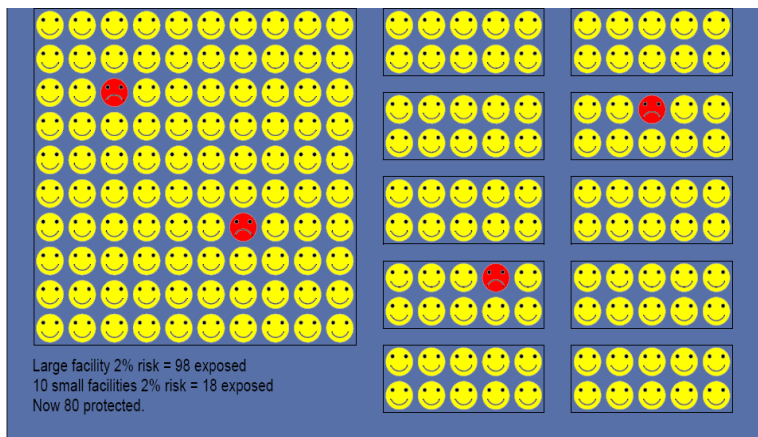
Provincial and district levels: PHOs and DHOs, all hospitals (central, province, district) and all health centres;

VHWs, VHVVs at community level country wide

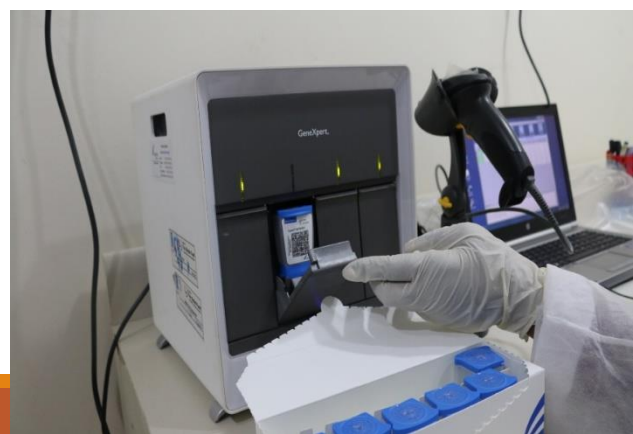
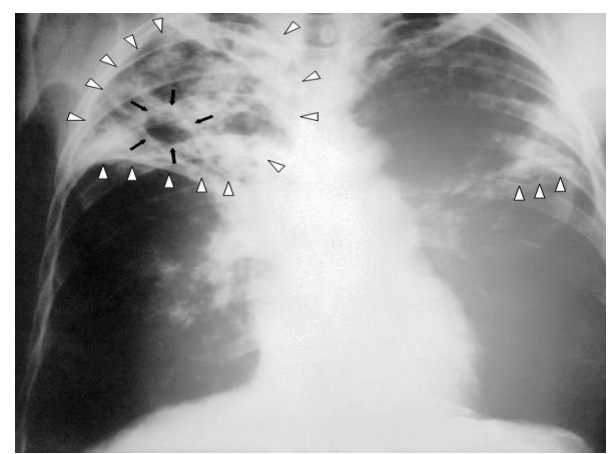
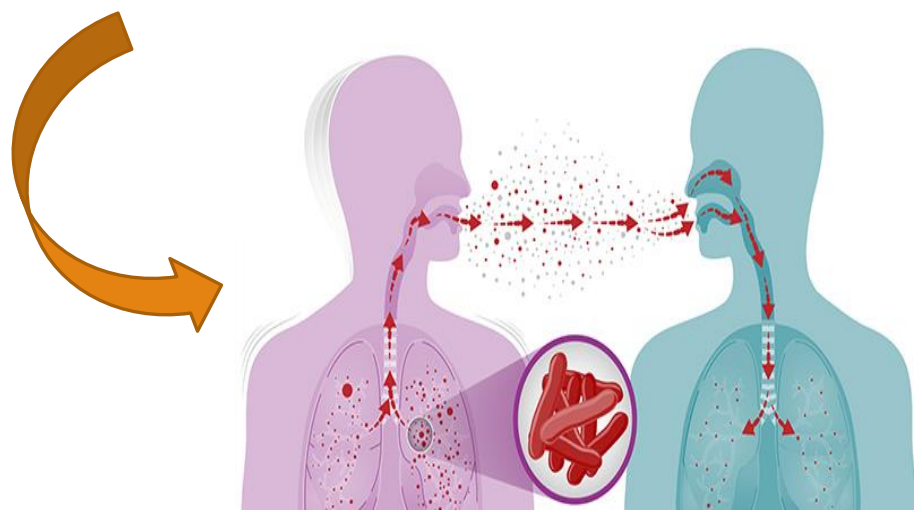
Community based partners in CSOs project areas: CHIAS, PEDA, HPP

Other partners:

Global Fund, World Bank, private sector, international technical partners (WHO, CHAI, CILM, KIT)



Thank you



NTP strategy 2021-2025 (1) *optional slide*

Vision: END TB in Lao PDR

Objectives:

- To decrease mortality and morbidity due to TB as per End TB targets milestones (50% reduction in TB incidence and 75% reduction in mortality due to TB by 2025 compared to 2015)
- To develop patient centred approach and equity in access to quality TB services
- To protect all TB patients under the National Health insurance system
- To contribute to the Universal Health Coverage (quality TB services in primary health care at province, district and health centre levels)

NTP strategy 2021-2025 (2) *optional slide*

Priority interventions:

- Increase awareness and access for all TB patients from village to health centre level with community based approaches/partners;
- Test all TB presumptive patients for resistance to Rifampicin with Xpert;
- Free screening by chest X-ray for all TB contacts;
- Outreach active case finding (ACF) among high risk groups;
- Streamline TB and HIV collaborative activities within UHC;
- Real time surveillance with DHIS 2 TB tracker countrywide;
- PHO/DHO analyse TB data in DHIS2 and adapt interventions;
- Full NHI coverage and social support to all TB/MDR-TB patients;