



**Ministry of Health and Social Protection of the Republic of Tajikistan
The State Institution "Republican Center for Protection of Population from Tuberculosis"**

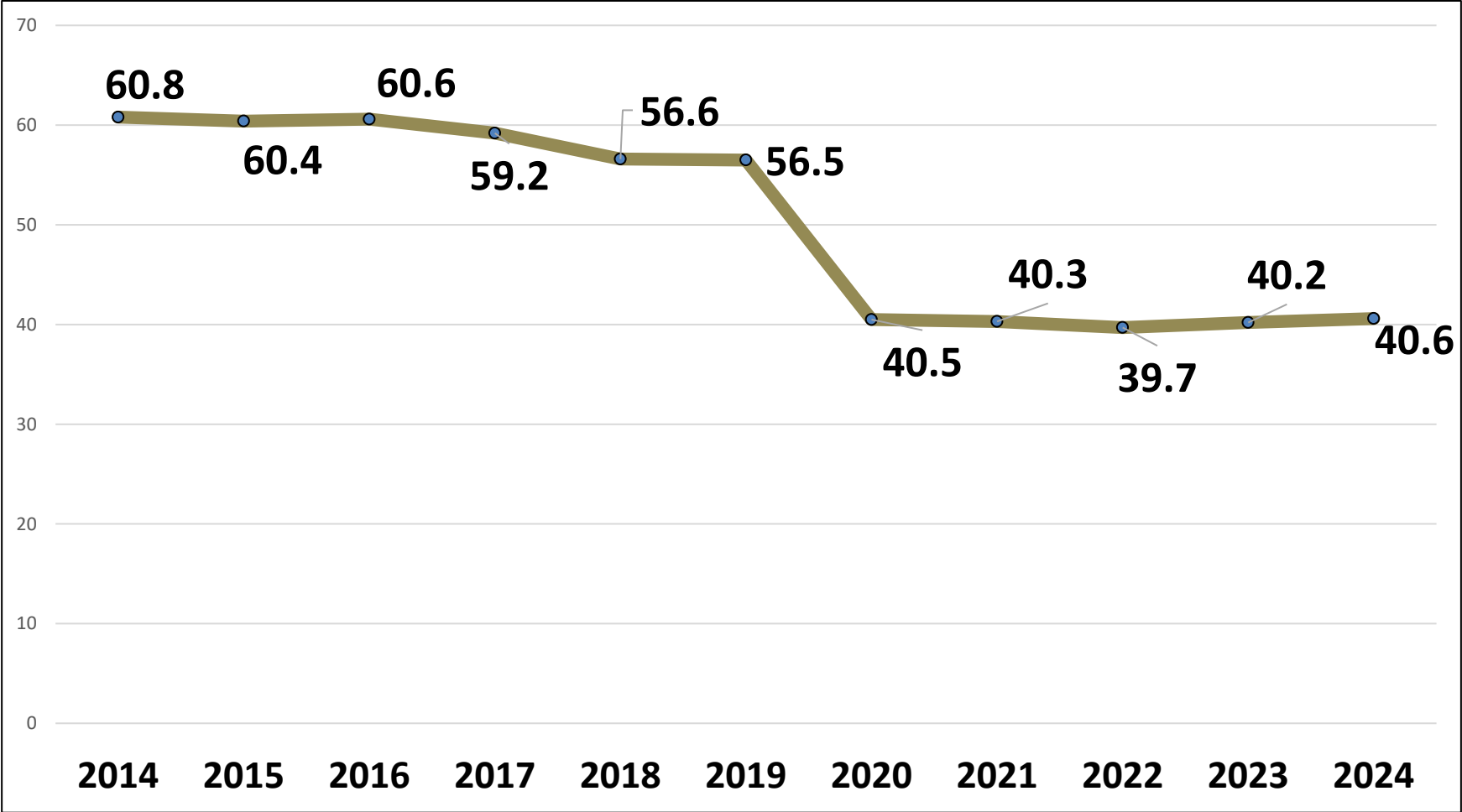
Introduction of DR TB short-term treatment in the Republic of Tajikistan

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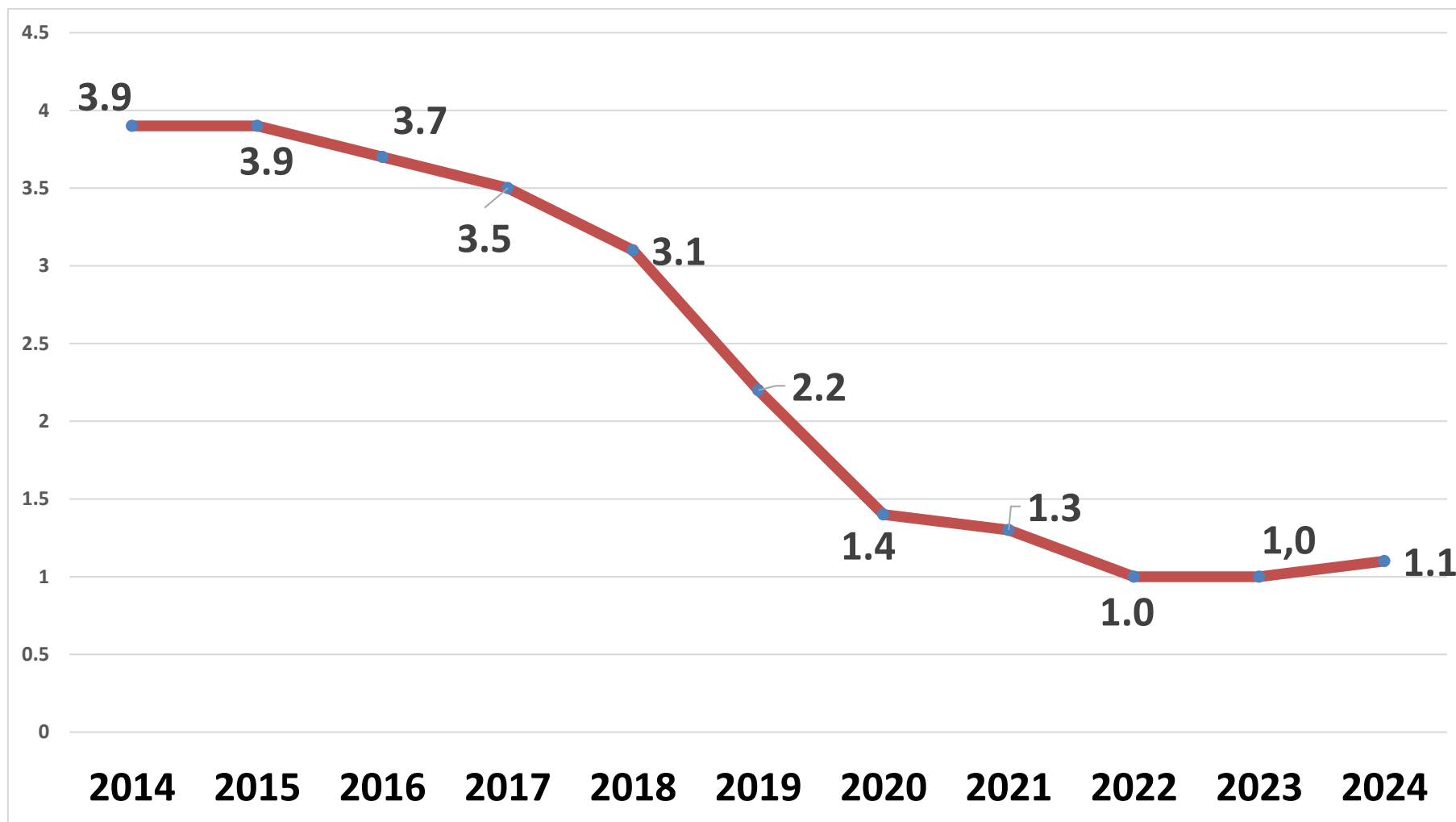
**The Republican Center for Protection of Population from Tuberculosis of the
Republic of Tajikistan**

April 2025

Tuberculosis incidence in the Republic of Tajikistan, 2014-2024



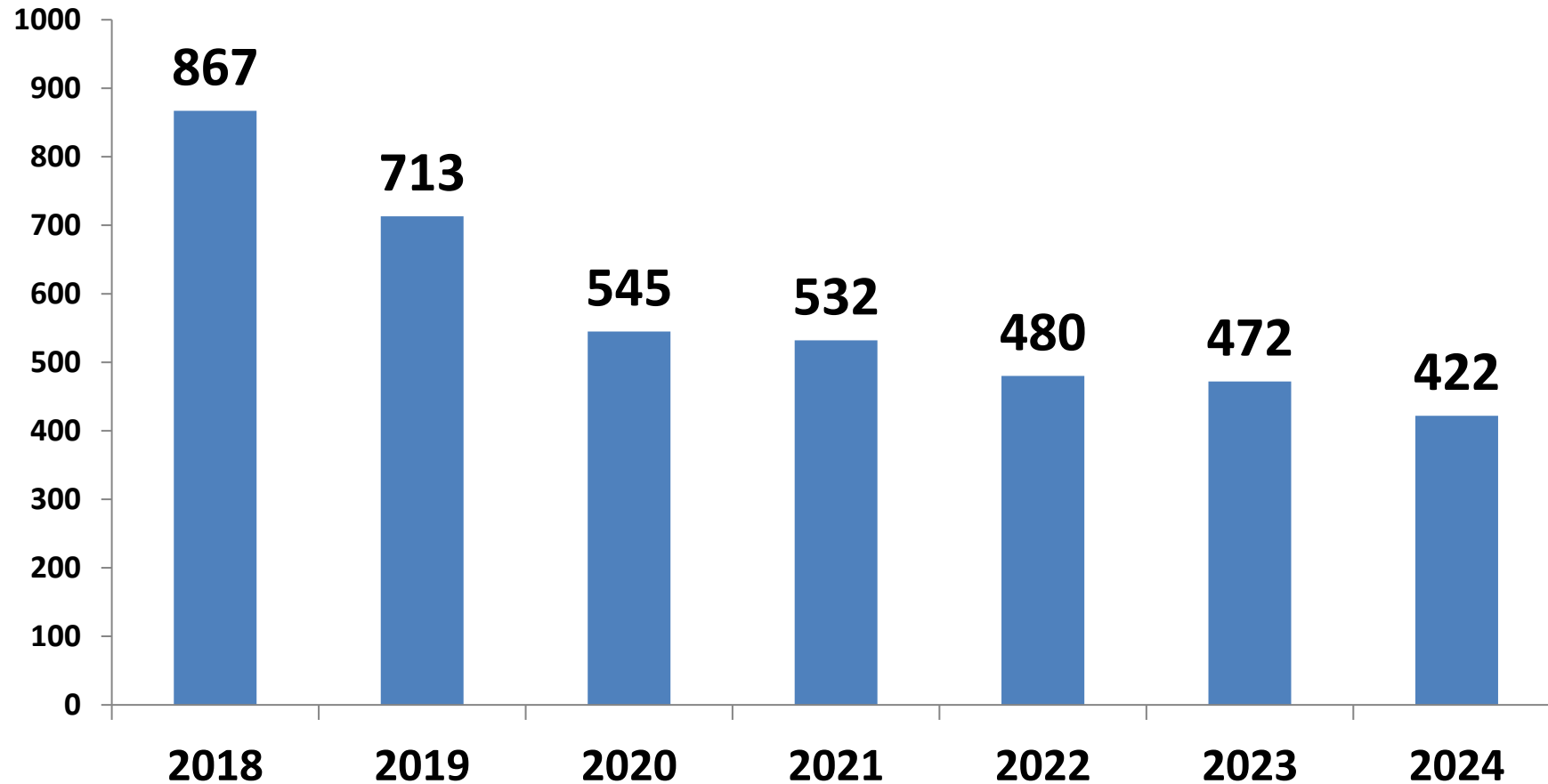
Tuberculosis mortality rate in the Republic of Tajikistan, 2014-2024



Diagnostic database of the TB Service of Tajikistan

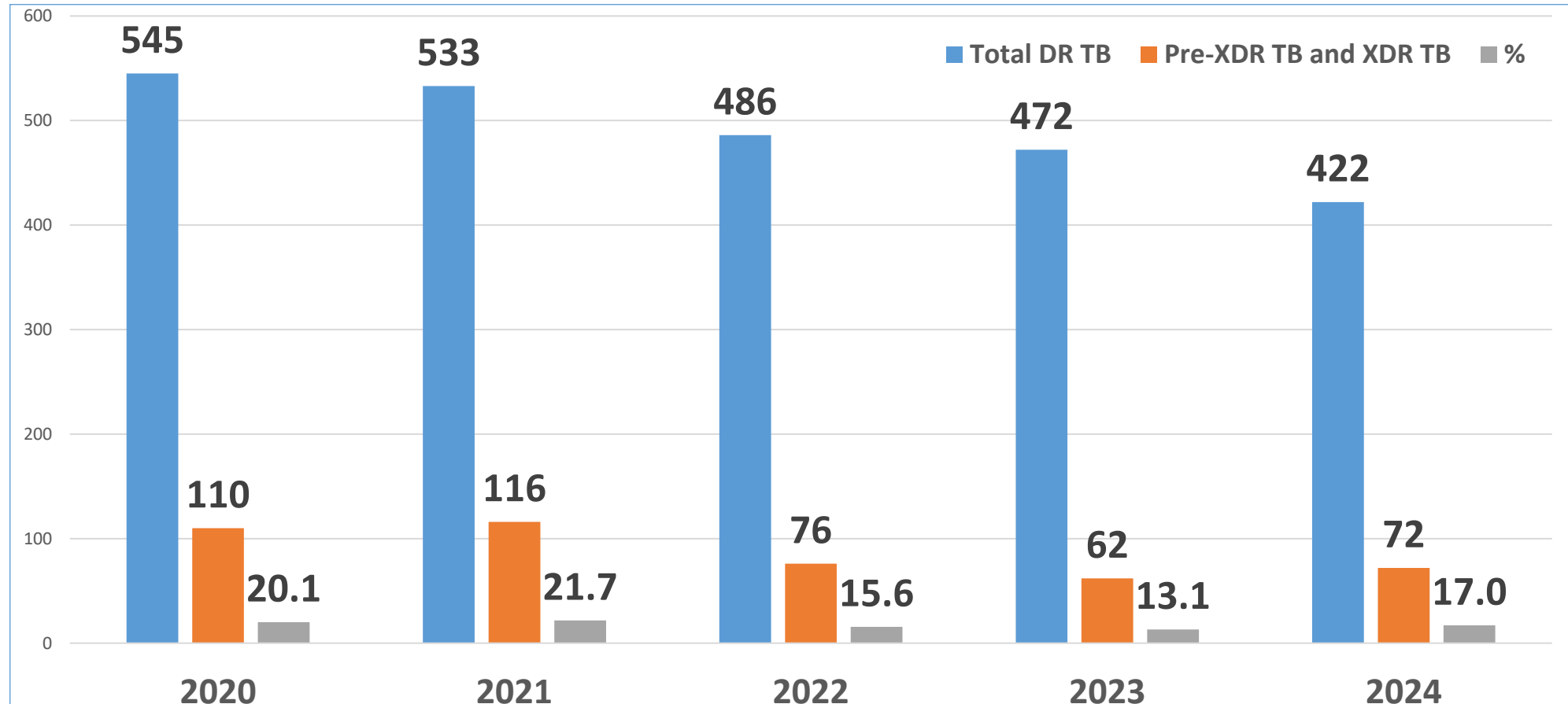
- National Reference Laboratory – performs seeding and DST
- National Laboratory of Public Health in Dushanbe – seeding for TB diagnosis
- **4** regional laboratories – seeding TB.
- **78 operating GeneXpert devices** for TB diagnosis.
- **40** portable X-ray machines with artificial intelligence (31 in the TB service, 3 in the penitentiary system, 6 in the HIV service).
- **5** mobile fluorographic vehicles
- **8** digital X-ray machines
- **1** computer tomography machine.

DR TB registration rate for 2018-2024



The DR TB detection rate has decreased in 2024 by 445 patients (51.3%) compared to 2018.

Proportion of Pre-XDR TB and XDR TB among resistant forms, 2020-2024



The percentage of broad forms of DR TB decreases in Tajikistan

Introduction of detection and treatment of resistant forms of TB in Tajikistan

- The program for detection and treatment of DR TB has started in Tajikistan in 2012.
- According to the latest National Study of Drug Resistance conducted in 2016-2017 in Tajikistan, the proportion of MDR TB among new TB cases was 19.9% (compared to 13% in 2011) and 41.1% among recurrent cases (54% in 2011).
- The proportion of pre-XDR TB among new MDR TB cases was 25.7% (19.6% in 2011), among previously treated MDR TB cases – 23.1% (29,0% in 2011).
- The proportion of XDR TB among new MDR TB cases was 15.2% (12.7% in 2011), among previously treated cases – 8.3% (21.0% in 2011)

DR TB treatment regimens in the Republic of Tajikistan

Currently in use:

1. BPAL
2. BPALM
3. BPALS
4. Individual treatment

Treatment of resistant forms of TB by regimens, 2023-2024

	Total DR TB	mSTR	BPaL	BPaLM	BPaLC	Individual treatment
2023	472	100 – 21.3%	38 – 8.0%	0	0	329 – 69.7%
2024	422	25 – 6.0%	36 – 8.5%	120 – 28.4%	4 – 1.0%	237 – 50.2%

In 2024 the number of patients taken for short-term treatment increased by 15.0%, compared to 2023, and reached 44.0%.

The proportion of individual treatment of resistant forms is still high.

BPaLM (6 Bdq-Pa-Lzd-Mfx)

MDR/RR TB patients with suspected or laboratory-confirmed sensitivity to fluoroquinolones are prescribed with a 6-month fully oral **BPaLM** treatment, which includes bedaquiline, pretomanide, linezolid (600 mg) and moxifloxacin.

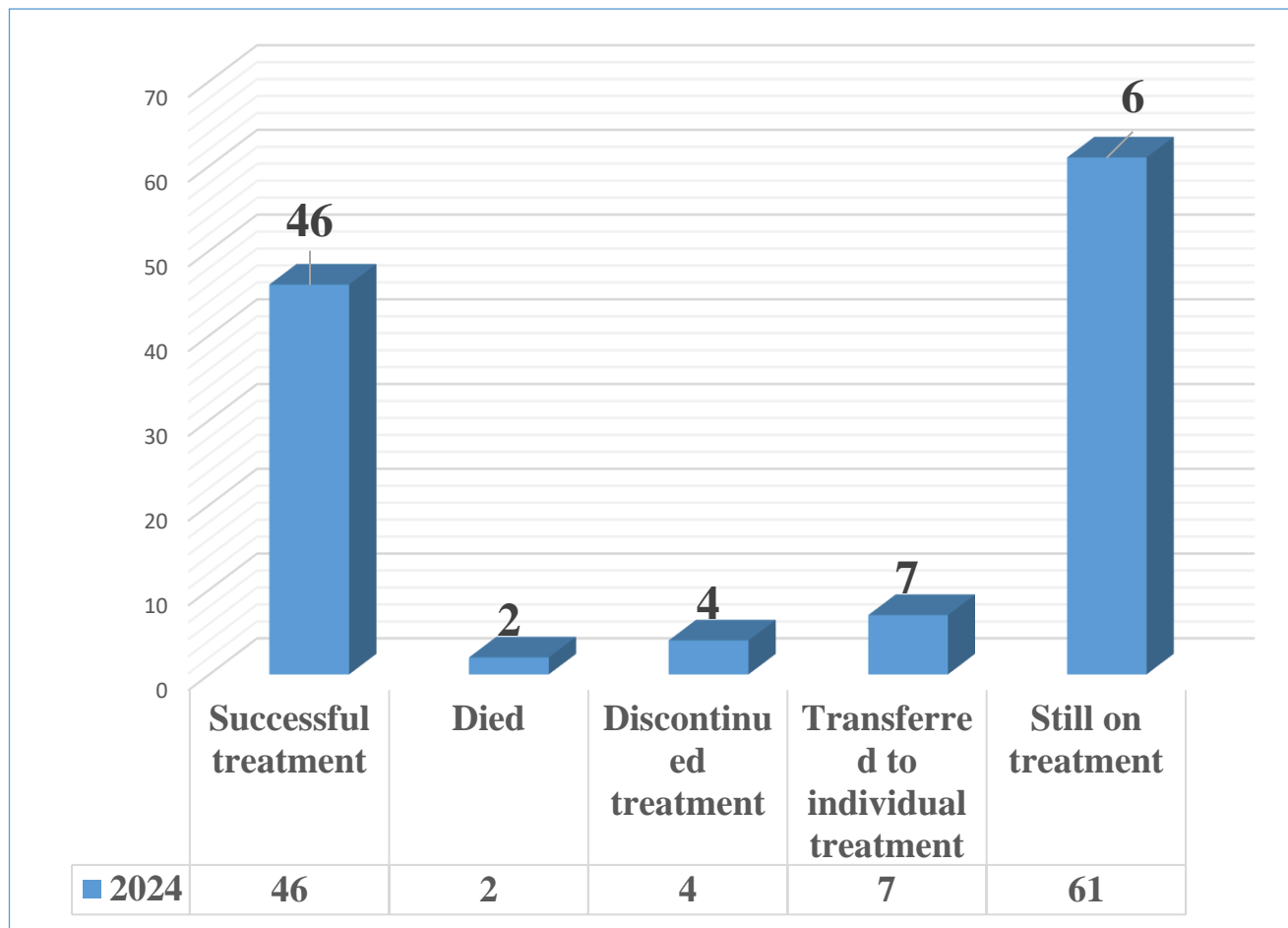
According to the latest WHO recommendations, the 6-month BPaLM regimen is the preferred treatment for the most MDR/RR TB patients.

Introduction of the BPaLM in the Republic of Tajikistan (1)

- In 2021-2022, an operational study was conducted in the Republic of Tajikistan on introduction of the BPaLM in pilot areas (1 pilot area)
- The study included 9 patients in total:
 - 8 patients for BPaLM, and
 - 1 patient for BPAL,
- The treatment success was 100%.

Introduction of the BPaLM in the Republic of Tajikistan (2)

- The BPaLM treatment of DR TB has started in January 2024.
- The BPaLM treatment of patients generally begins in an inpatient setting until the negative sputum analysis results, then patients are transferred to outpatient treatment at their place of residence.
- In 2024, there were 422 DR TB out of the total number of people included into the treatment of resistant forms of tuberculosis:
 - included for short-term treatment – 185 patients (44.0%)
 - BPaLM – 120 (28.4%).



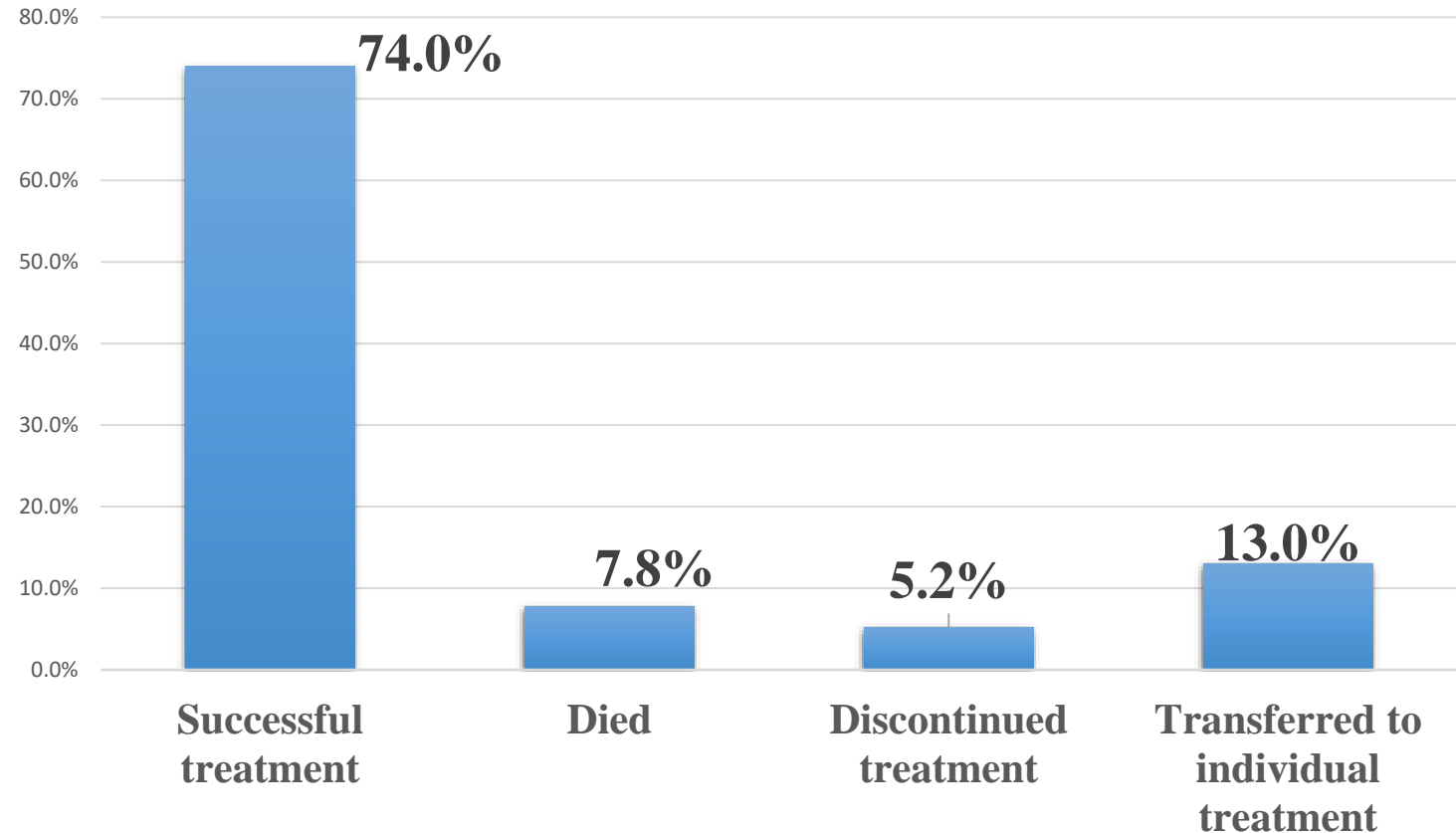
In 2024, the BPLM treatment success rate was 78.0%

Introduction of the BPaL in the Republic of Tajikistan (3)

BPaL treatment results as for 2023

Operational study:

- 6-9 months (26-39 weeks) of treatment
- 12 months of monitoring at the end of the study
- start – 12/20/2021
- completion – 06/20/2023



38 TB patients were treated with BPaL in 2023.
In 2024, 36 DR TB patients were taken for BPaL treatment

Introduction of the mSTR in the Republic of Tajikistan

Operational study

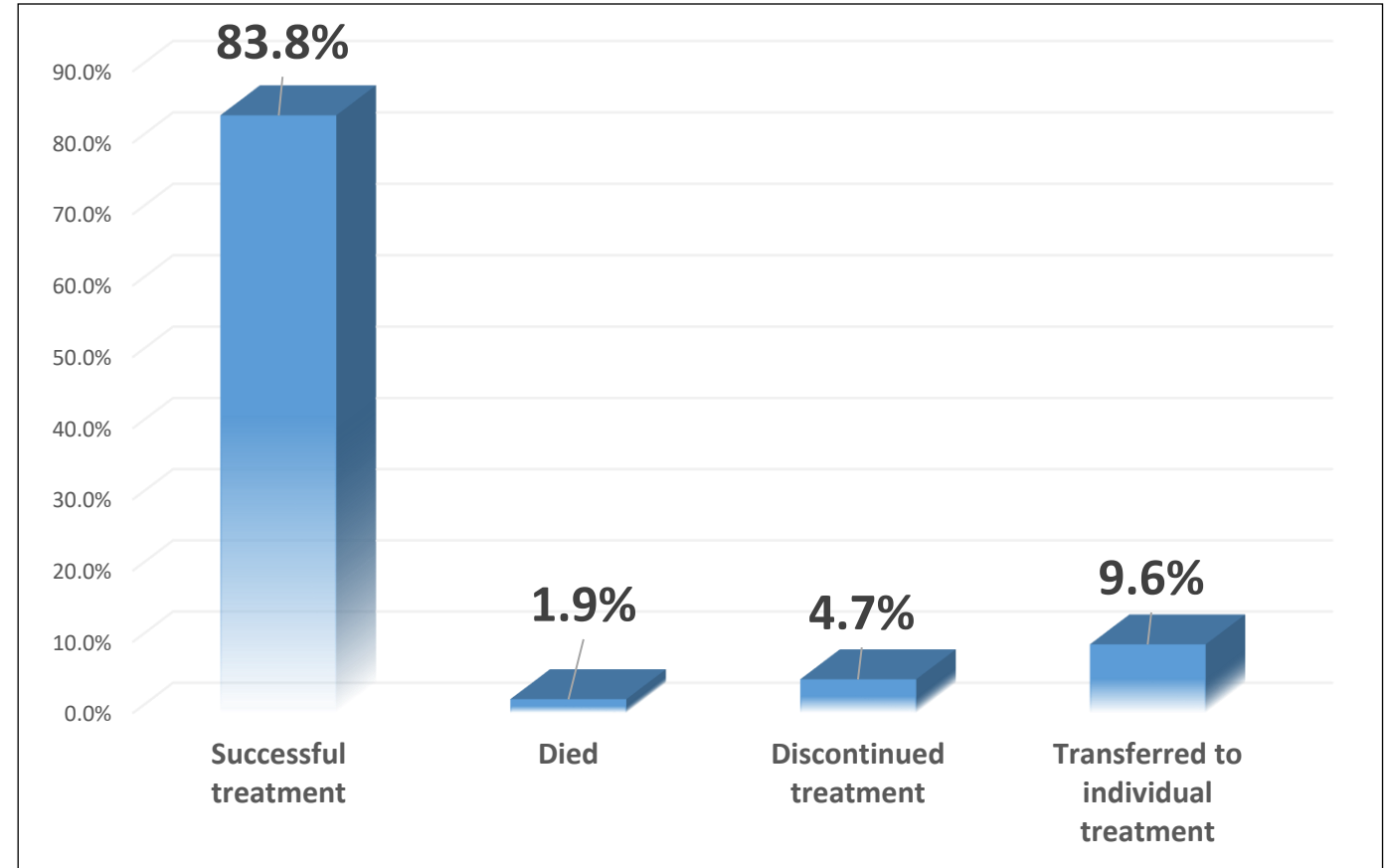
- Treatment period – 9 months (39 weeks)
- 12 months of monitoring at the end of the treatment

Start of inclusion: December 4, 2020

- Stage 1 – from December 2020 to March 2021
- Stage 2 – from April 2021 to April 2023

Completion of inclusion: April 06, 2023

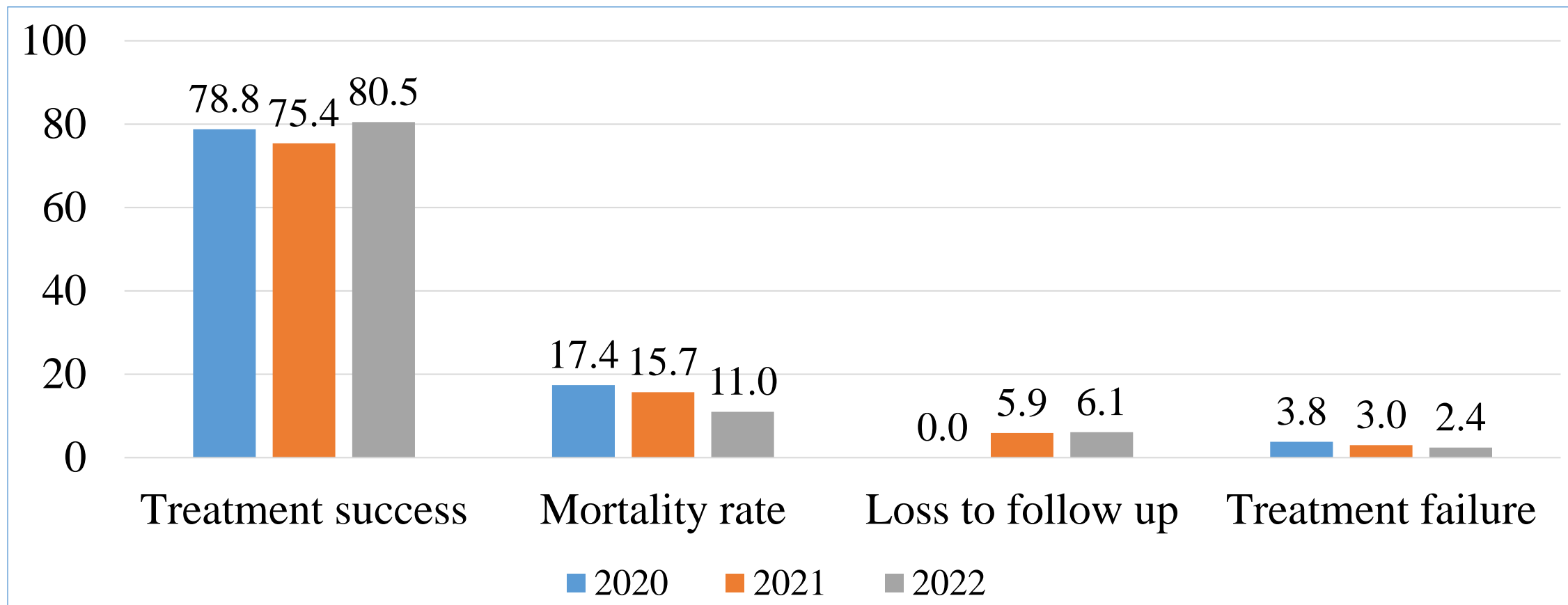
mSTR results as for 2023



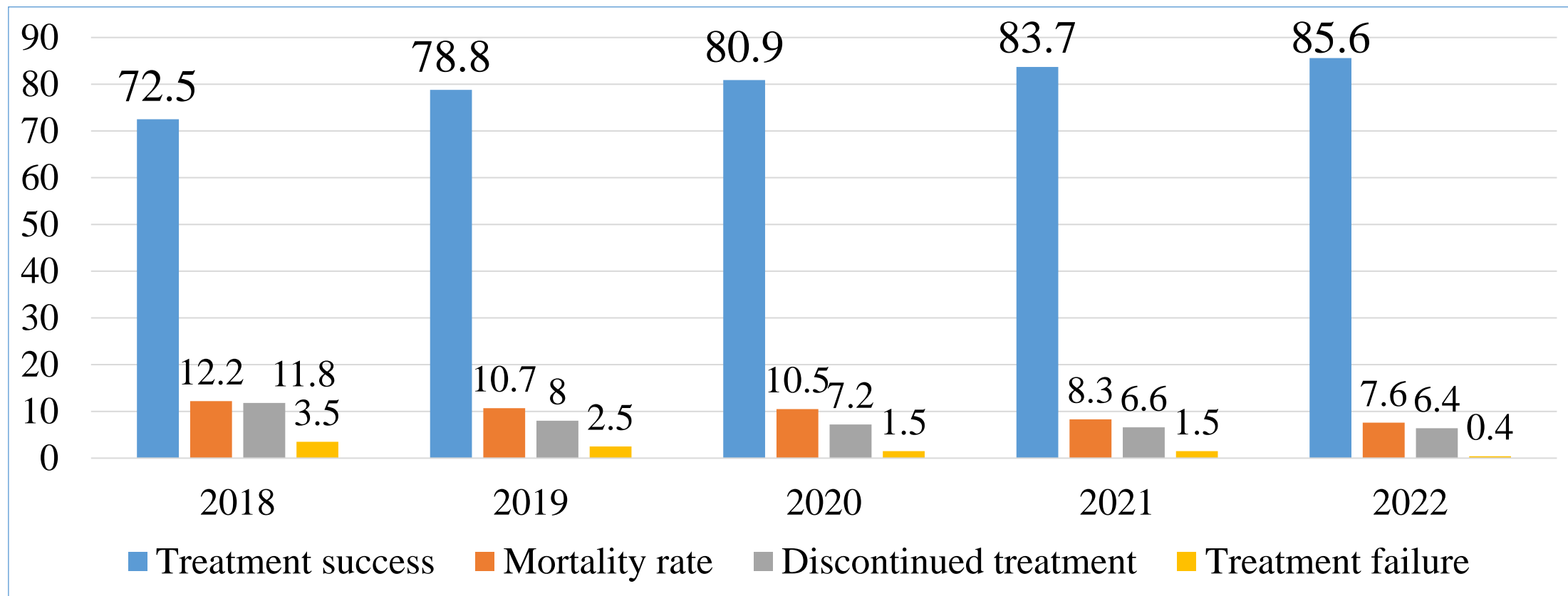
In 2023, 105 TB patients were treated under the mSTR

In 2024, 25 DR TB patients were taken for mSTR

Results of treatment of extensively drug-resistant TB in 2020-2022



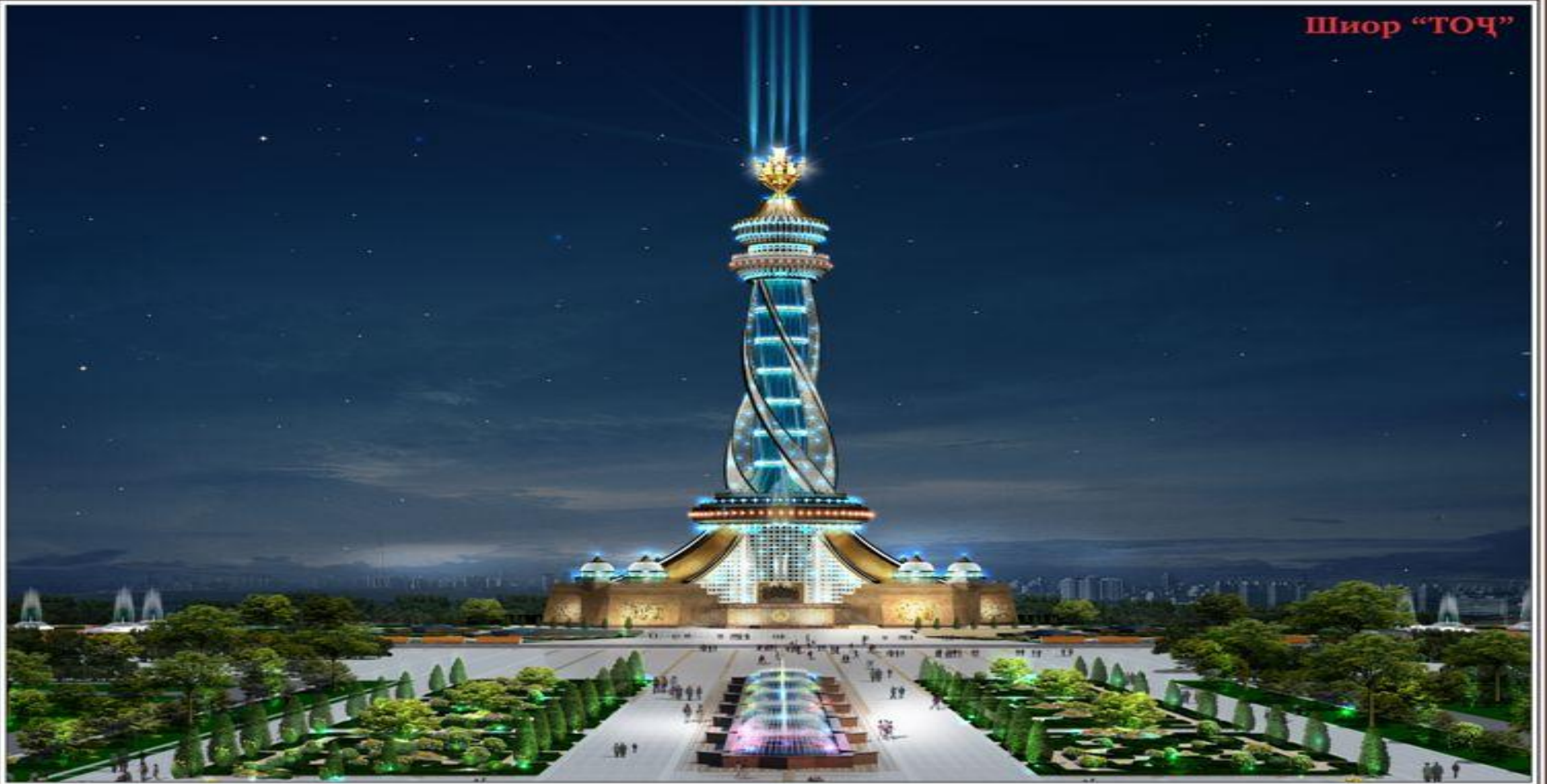
Results of treatment of drug-resistant TB in 2018-2022



The treatment success of TB resistant forms in 2022 improved by 13.1% compared to 2018.%

Existing problems

1. Currently, there is one reference laboratory in the Republic of Tajikistan where DST is performed. The laboratory is quite overloaded, which affects the timing of the DST results, which also subsequently affects the detection of DR TB.
2. One of the reasons for delayed admission of DR TB patients to BPaLM treatment in Tajikistan was that the new DR TB guidelines prepared as per the latest WHO recommendations had not been approved, and there was a limited supply of Mfx. For now, supply of Mfx in Tajiskistan is sufficient.
3. Patients that were not taken for BPaLM treatment have co-existent diseases that may affect the disease progression and treatment, and impact the treatment negatively. For example, decrease in hemoglobin level, which was observed in most DR TB patients. From our experience, Linezolid causes peripheral neuropathy, which is very common for patients with diabetes mellitus. Cases of 2-sided parenchymal changes in the lungs.



Thank you for your attention!