



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

Implementation of BPaLM regimen in Tajikistan

Abdullo Makhmadov

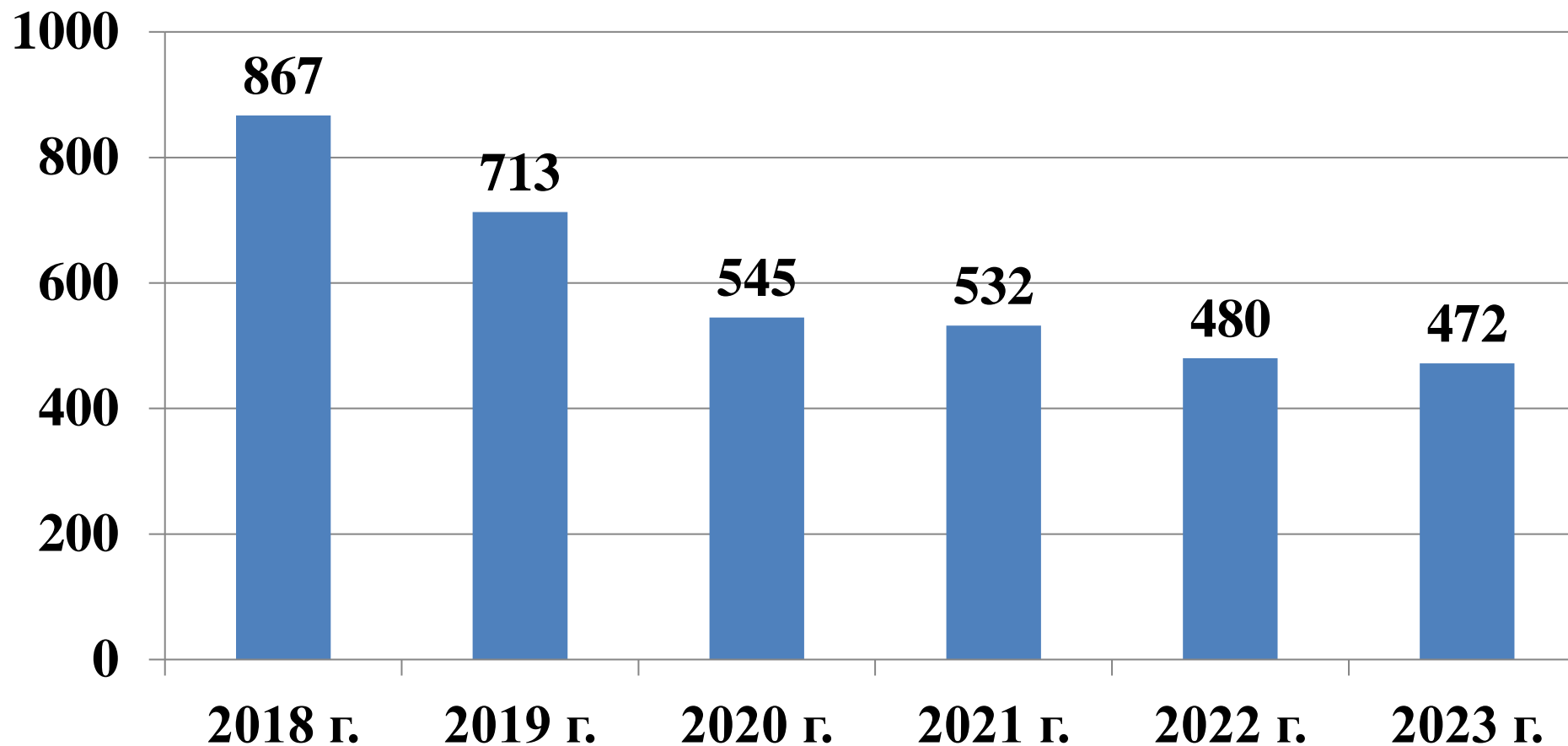
Republican Center for the Protection of the Population from Tuberculosis of the Republic of Tajikistan

2024

Implementation of detection and treatment of drug-resistant forms of tuberculosis

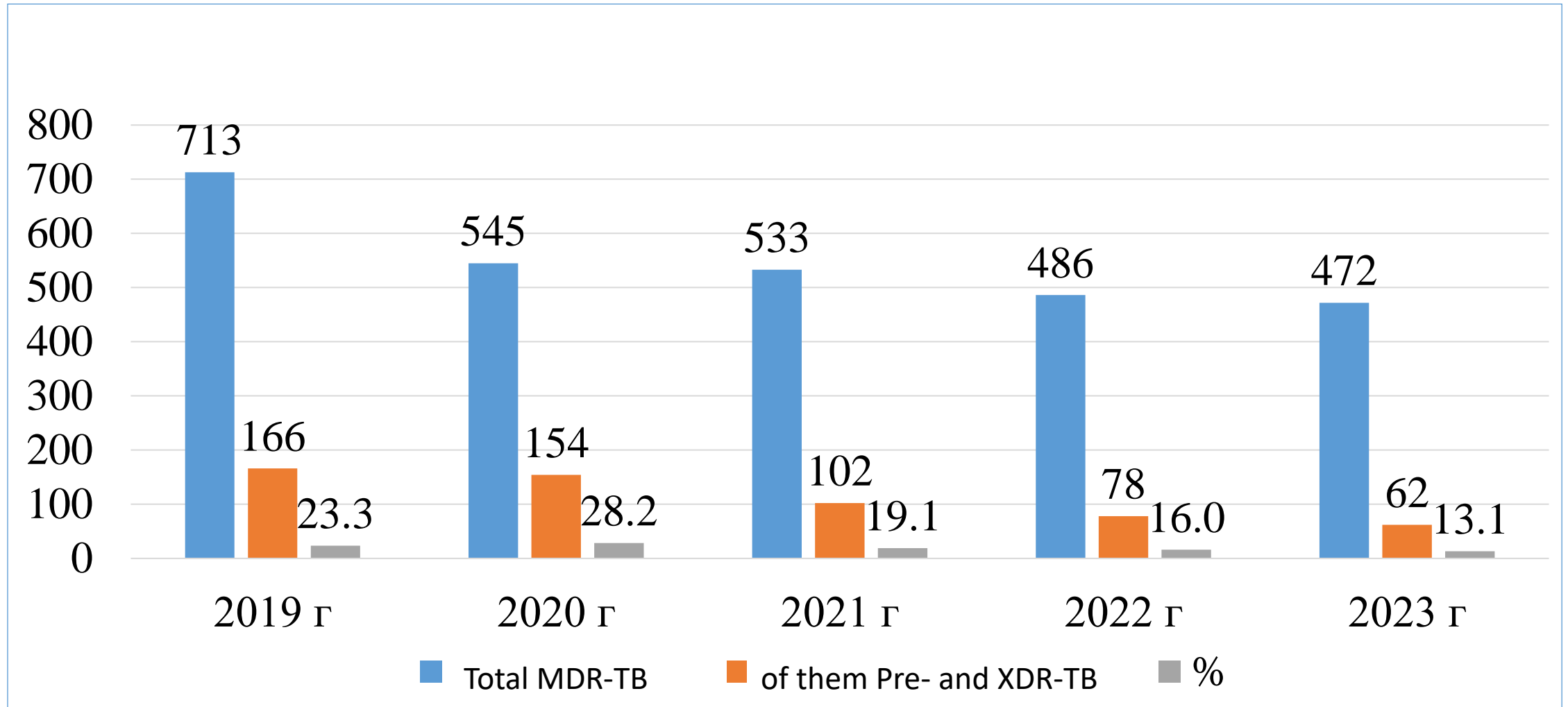
- The program for detection and treatment of DR-TB began in the country in 2012.
- According to the latest National Study of Drug Resistance in Tajikistan 2016-2017, the proportion of MDR-TB among new TB cases was 19.9% (compared to the 2011 DRS - 13%) and among recurrent cases - 41.1% (2011 DRS - 54%).
- The proportion of pre-XDR-TB among new cases of MDR-TB was 25.7% (DRS 2011 - 19.6%), among previously treated cases of MDR-TB - 23.1% (DRS 2011 - 29.0%).
- The proportion of XDR-TB among new cases of MDR-TB was 15.2% (DRS 2011 - 12.7%), among previously treated cases it was 8.3% (DRS 2011 - 21.0%)

Notification of resistant forms of tuberculosis 2018-2023



**Compared to 2018, the notification of resistant forms of tuberculosis decreased by 45.5%.
DR-TB among primary TB patients 339 - 72.0% and among recurrent TB 133 - 28.0%**

The proportion of Pre- and XDR-TB among resistant forms



The percentage of broad forms of tuberculosis is decreasing in the republic

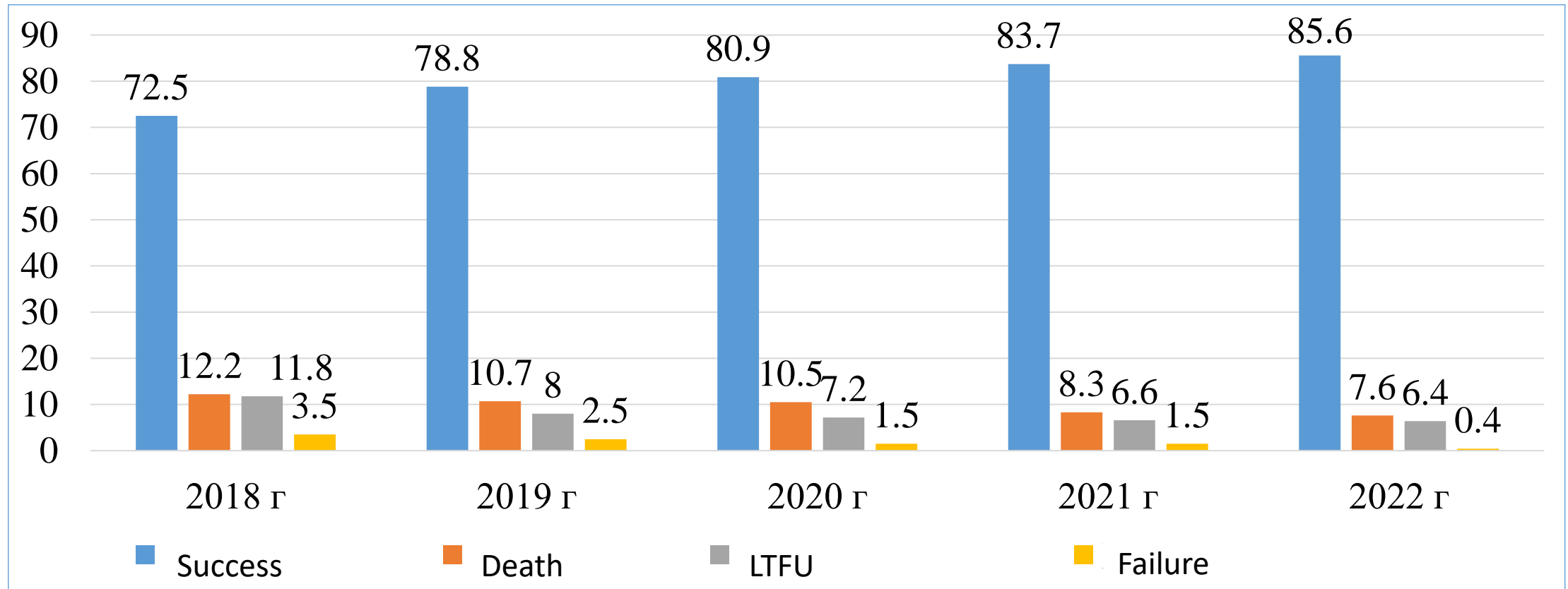
Treatment of resistant forms of tuberculosis by regimens for 2023

	Total DR TB	mSTR	BPaL	ILR
2023 year	472	100 - 21.3%	43 - 9.0%	329 - 69.7%

In 2023, only 30.3% of drug-resistant forms of tuberculosis were assigned on short-term treatment regimens.

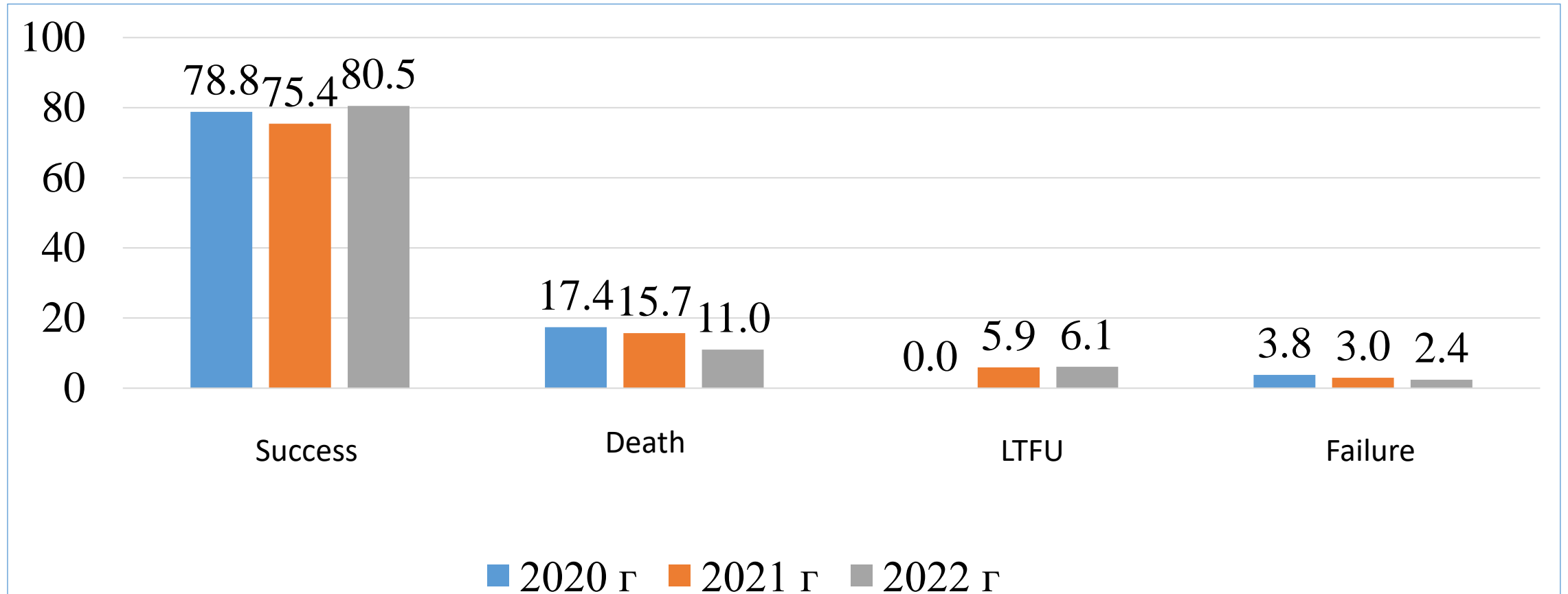
The proportion of resistant forms being assigned into an individual treatment regimen remains high.

Results of treatment of drug-resistant forms of tuberculosis in 2018-2022



The effectiveness of treatment of drug-resistant forms of tuberculosis in 2022 compared to 2018 improved by 13.1%

Results of treatment of extensively drug-resistant tuberculosis for 2020-2022



Treatment regimens for DR-TB in the Republic of Tajikistan

- Currently used:

1. BPAL
2. BPALM
3. ILR

Approach to patient triage

The principle of sorting patients into the appropriate treatment regimen based on the results of molecular tests for drug sensitivity.

Factors determining the choice of treatment regimen:

- include drug resistance profile,
- use of treatment drugs in the past,
- DST profile of close contacts,
- age,
- extensiveness of tuberculosis process in the lungs and localization extrapulmonary foci tuberculosis.

BPaLM regimen (6 Bdq-Pa-Lzd-Mfx)

Patients with MDR/RR-TB with presumptive or laboratory-confirmed susceptibility to fluoroquinolones are prescribed a 6-month all-oral regimen **BPaLM** , which includes bedaquiline , pretomanid , linezolid (600 mg), and moxifloxacin.

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

Implementation of the BPALM regimen in the Republic of Tajikistan

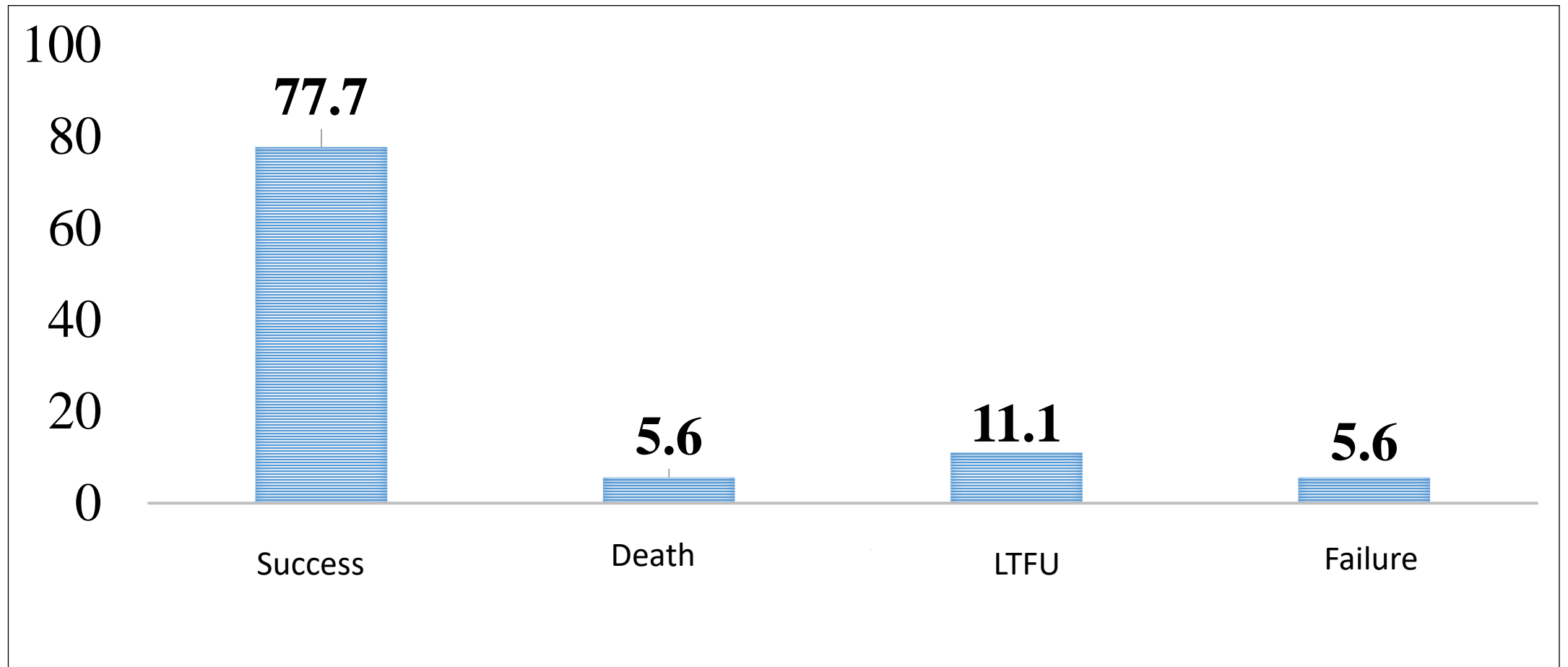
- In 2021-2022, an operational study was conducted in the Republic of Tajikistan on the implementation of the BPaLM regimen in pilot districts (1 pilot district)
- A total of 9 patients were included in the study:
 - BPaLM regimen - 8 patients and
 - BPaL regimen C -1 patient,
- The treatment effectiveness was 100%.

Implementation of the BPALM regimen in the Republic of Tajikistan

- Under program conditions, treatment of DR-TB according to the BPALM regimen began in January 2024 in the Republic of Tajikistan.
- Treatment of patients according to the BPALM regimen generally begins in hospital settings until negative sputum analysis results are obtained, and then patients are transferred to outpatient treatment at their place of residence.
- For the first 9 months of 2024, out of the total number of resistant forms of tuberculosis assigned on treatment - 334 DR-TB:
 - On short regimens -142 patients- **42.5%**
 - BPALM regimen - 86 - **25.7%** .

The result of treatment of resistant forms of tuberculosis with BPALM regimen in the Republic of Tajikistan

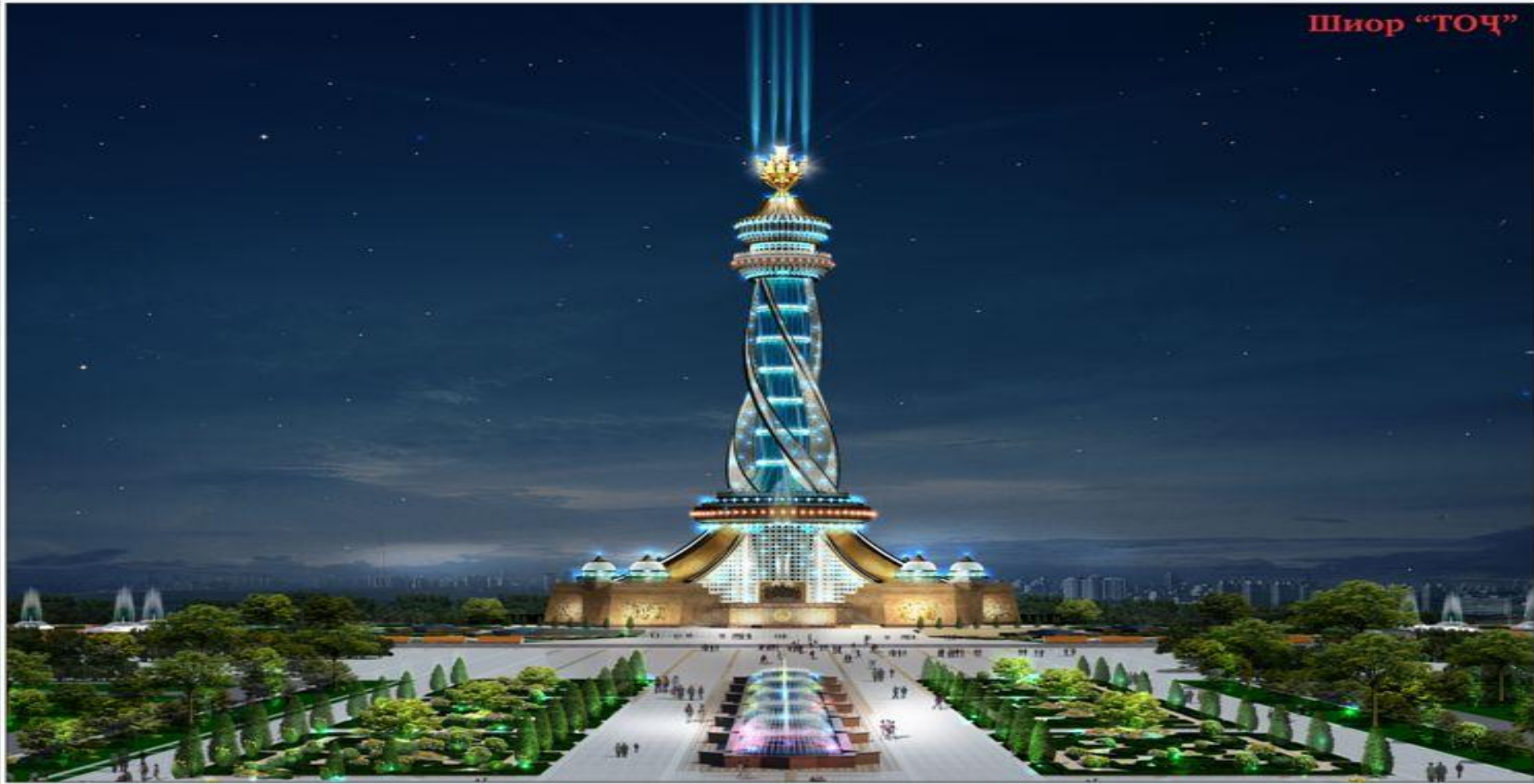
Of the 86 patients with resistant forms of tuberculosis assigned on treatment under the BPALM regimen for 9 months of 2024, 18 patients or 20.2% have treatment results.



Existing problems

1. In the Republic of Tajikistan has currently one reference laboratory where DST is performed. The laboratory is very busy, which affects the timely receipt of the results of the DST, which subsequently also affects the detection of DR-TB.
2. One of the reasons for the untimely admission of DR-TB patients to treatment under the BPaLM regimen in the country - this was not approved new guidelines on DR-TB according to the latest WHO recommendations and there was a limited supply of the drug Mfx. Currently, there is a sufficient supply of the drug Mfx in the country
3. Patients not assigned on BPaLM regimen have concomitant diseases that can affect the course of the disease and treatment to achieve a good effect from treatment. For example, a decrease in the hemoglobin level, which was observed in most DR TB patients. From experience, we know that the drug Linezolid gives peripheral neuropathy, which is very common in patients with diabetes mellitus. Cases of bilateral parenchymatous changes in the lungs.

Шиор "ТОЧ"



Thank you for your attention!