

## BACKGROUND

- Over the last decade, about 100 people per year have been diagnosed with multi-drug resistant (MDR) TB disease in the United States
- The U.S. Food and Drug Administration approved pretomanid in 2019 as part of a 6-month all-oral regimen consisting of bedaquiline, pretomanid, and linezolid (BPaL)
- Characterizing baseline MDR TB clinical outcome data prior to rollout of this new regimen provide an essential benchmark for judging improvements in future MDR TB outcomes

## METHODS

- The U.S. CDC National Tuberculosis Surveillance System (NTSS) collects data for TB cases reported to CDC from all U.S. and U.S.-affiliated areas
- We assessed sociodemographic, clinical, and treatment outcome for MDR TB cases reported to NTSS 2014–2018
- We examined the regimen and MDR treatment duration for each patient
- Therapy beyond 18 months was defined as treatment longer than 548 days
- Patients were categorized as having completed treatment if “completed therapy” was reported as the reason therapy was stopped

## RESULTS

- Of 48,595 total reported U.S. TB cases, 524 (1%) were categorized as MDR TB
- Of 515 MDR TB patients alive at diagnosis started on TB medications, MDR TB was not covered by the initial TB treatment regimen in 251 (49%) patients

# U.S. MDR TB outcomes 2014-2018 (before availability of 6-month oral MDR regimens) were suboptimal; of those who started TB treatment, almost 40% did not achieve treatment completion within 2 years



- Short and better tolerated regimens may be improving outcomes at the national level
- Other complementary operational elements, such as rapid MDR identification and timely initiation of appropriate MDR treatment, should be evaluated in parallel to optimize national advances

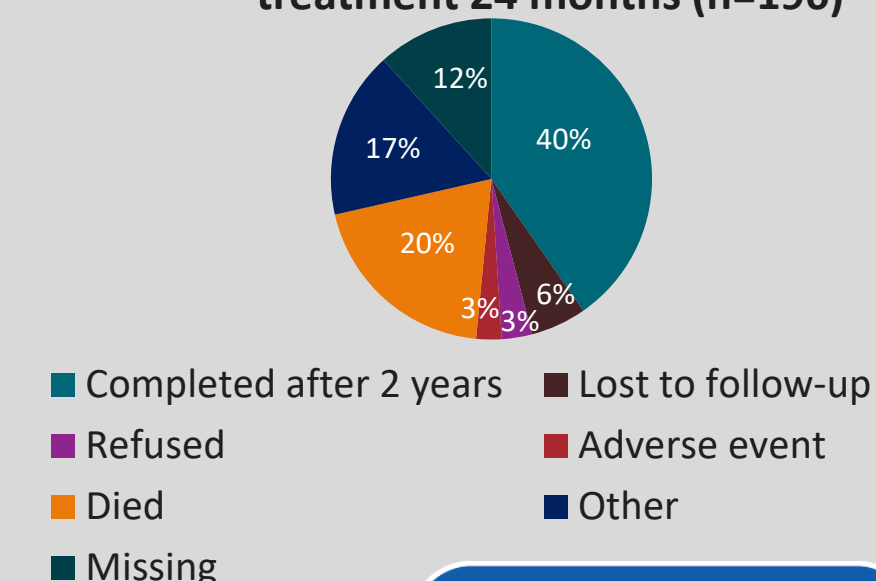
## RESULTS

### CHARACTERISTICS OF MDR TB PATIENTS, 2014-2018

Characteristics (N=524)	N(%)
Age group (years)	
0–14	4 (0.8%)
15–24	80 (15.3%)
25–44	230 (43.9%)
45–64	130 (24.8%)
≥ 65	80 (15.3%)
Male Sex	279 (53.2%)
Non-U.S.-born	456 (87.0%)
Excessive alcohol use within past year	27 (5.2%)
Correctional facility resident at time of TB diagnosis	15 (2.9%)
Long-term care facility resident at time of TB diagnosis	3 (0.6%)
Homelessness within past year	9 (1.7%)
Injectable drug use within past year	7 (1.3%)
Site of disease	
Pulmonary only	422 (80.5%)
Extrapulmonary only	54 (10.3%)
Both	48 (9.2%)
Reported prior episode of TB	102 (19.4%)
HIV positive	23 (4.4%)
Diabetes mellitus	98 (18.7%)

- Of 515 patients with MDR TB who were alive at the time of diagnosis and initiated TB therapy, 196 (38%) did not achieve treatment completion within 24 months

Patients who did not complete treatment 24 months (n=196)



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