Unitaid
Innovation in Global Health

Humberto, 50, participated in the endTB clinical trial in Peru. He was cured of multidrug-resistant tuberculosis and is looking forward to spending time with his grandchildren.
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IMPACT STORY:
EXPANDING ACCESS TO NEXT GENERATION DRUG-RESISTANT TUBERCULOSIS TREATMENT

The problem

Antimicrobial resistance (AMR) has emerged as one of the world's most pressing public health concerns. Ten million people will die of drug-resistant infections by 2050 if trends continue, with more than a quarter of those deaths from drug-resistant strains of tuberculosis (TB).[1]

About 600,000 people develop drug-resistant TB each year and 230,000 people die from it. Standard treatments involve up to two years of oral and injectable medications. These long treatments often cause severe side effects. Even with treatment for drug-resistant TB, only 55 percent of patients are cured.[2] Better treatments for drug-resistant TB are urgently needed to reduce the growing burden of the disease and stop the spread of antibiotic resistance.

In recent years, two new drugs, delamanid and bedaquiline, were developed for the treatment of drug-resistant TB. Treatment regimens containing these new drugs have shown potential to improve treatment outcomes with fewer side effects. Use of these new drugs has been limited, however, because more data is needed to support large-scale adoption.

The solution

What is Unitaid doing?

Unitaid has a long-standing commitment to investing in innovations for TB treatment and diagnosis. In collaboration with the endTB consortium,[3] led by Partners in Health, Unitaid is investing US$ 81 million to evaluate and identify better treatments for drug-resistant TB. The endTB project (2015-2022) includes a large observational study and two clinical trials, all focused on bringing better treatment regimens to patients with drug-resistant TB.

The endTB observational study aims to drive demand and adoption of regimens containing delamanid and/or bedaquiline by generating valuable data on the safety and effectiveness of the new TB drugs as part of an MDR-TB[4] treatment regimen. This is the largest observational study of its kind, covering 17 countries on four continents. These countries account for more than 20 percent of world's drug-resistant TB. Data emerging from the observational study suggests that patients on treatment regimens containing one of the new drugs experience fewer side effects than with the standard regimens. This clinical data is shared continuously with the World Health Organization to support international recommendations and guideline reviews.

The endTB clinical trials build on the observational study by assessing the safety and effectiveness of several experimental, nine-month, injectable-free regimens containing one or both of the new drugs. Enrollment began in February 2017, and results data is expected in 2022. The clinical trial recently expanded to include more extensively drug-resistant patients, and now addresses all forms of MDR-TB. The new regimens from the clinical trials will likely become key treatment options for drug-resistant TB patients in coming years.

Expected Impact

Unitaid's investment in drug-resistant TB treatment has the potential to bring about significant public health gains. Modeling estimates suggest that the new treatments could cure 119,000 more patients, save 56,000 more lives and avert 239,000 drug-resistant infections from 2019 to 2027.

The new MDR-TB treatment regimens will also help save money over the long term. Identifying the most effective MDR-TB treatment regimens will consolidate a fragmented market, bringing down drug prices and stimulating competition from generic manufacturers. Health systems will also save on costs as more drug-resistant TB patients are treated with shorter, injectable-free regimens, reducing the cost of administering treatment.

1 Source: Review on Antimicrobial Resistance: Tackling Drug-Resistant Infections Globally, May 2016.
2 Source: Global Tuberculosis Report 2018 – World Health Organization
3 Consortium members include Médecins Sans Frontières (MSF) and Interactive Research and Development (IRD).
4 MDR-TB: resistance to two first-line tuberculosis drugs (rifampicin and isoniazid)

The main contributors to Unitaid are: France, United Kingdom, Brazil, Norway, Chile, South Korea, Mauritius, Madagascar, Spain and Bill & Melinda Gates Foundation.

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Benefits of new MDR-TB drugs and regimens

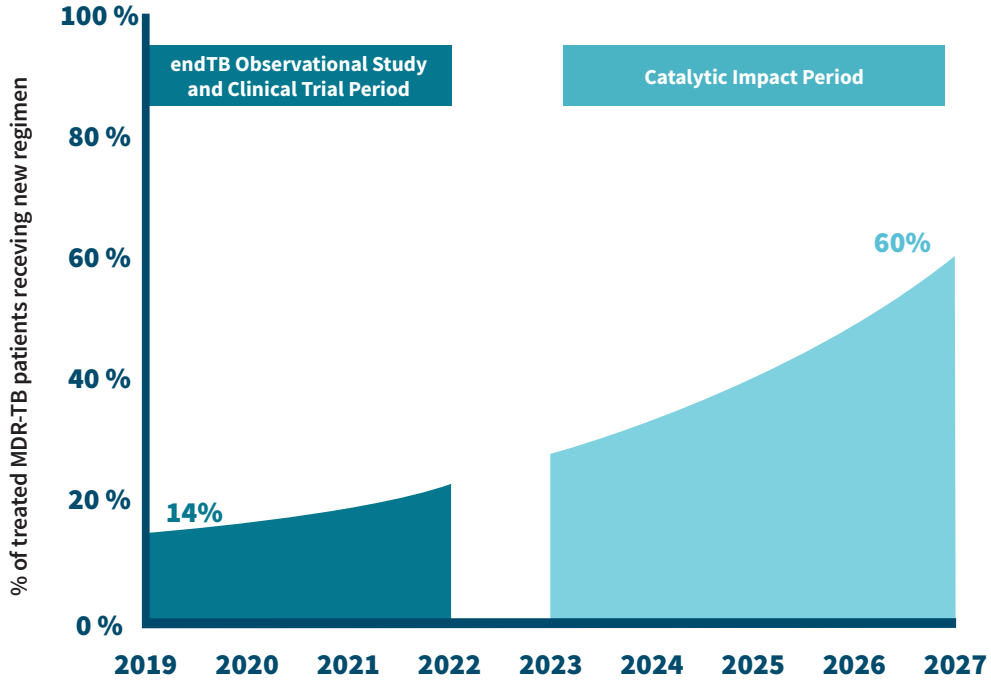
BENEFITS FOR THE PATIENT

- Availability of injectable-free regimens
- Reduced toxicity, fewer adverse side effects and safety events
- Shorter treatment duration with 9 month regimens
- Improved cure rates
  Expected cure rates of 75% - 80%

BENEFITS FOR THE HEALTH SYSTEM

- Reduced transmission
  For every additional patient cured, around 2 infections are averted
- Cost savings
  Up to 50% programmatic savings in administering treatment
- Improved treatment adherence for drug-resistant TB
- Lower risk of patients developing more extensive drug resistance

By 2027, new treatment regimens supported by the endTB project could account for 60% of all MDR-TB treatments, greatly reducing deaths and new infections.



Cumulatively from 2019 to 2027, the adoption of the new MDR-TB regimens could:

- **Cure** more than **100,000** additional patients
- **Prevent** nearly a **quarter of a million** drug-resistant infections
- **Save** more than **50,000** lives