

Extra stages in an MDR model

Main function

- Include incidence aggregator
- Additional parameters
- In infectious set, include MDR cases on FL treatment
- In states, include Tx2 for second-line treatment
- Include acquisition in counting MDR incidence

Objective function

- x: Include second component for beta_MDR
- Include start of MDR before public sector introduction
- Compare against given data for proportion MDR

Linear model

- Acquisition of MDR while on FL treatment
- SL treatment initiation
 - Upfront recognition of MDR
 - Transfer to SL treatment after failure on FL treatment
- SL treatment outcomes
- Default and cure

Nonlinear model

- Force of infection, additional row for MDR

Governing equations

- Structure the nonlinear terms in the ARTI